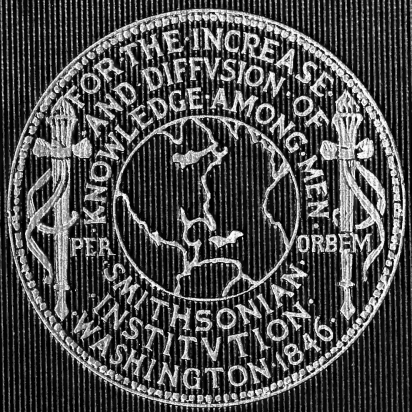

SMITHSONIAN INSTITUTION

UNITED STATES NATIONAL MUSEUM

REPORT ON THE PROGRESS AND CONDITION OF THE UNITED STATES NATIONAL MUSEUM FOR THE YEAR ENDED JUNE 30, 1935

UNITED STATES
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UNITED STATES NATIONAL MUSEUM,
UNDER DIRECTION OF THE SMITHSONIAN INSTITUTION,
Washington, D. C., October 15, 1935.

SIR: I have the honor to submit herewith a report upon the present condition of the United States National Museum and upon the work accomplished in its various departments during the fiscal year ended June 30, 1935.

Very respectfully,

ALEXANDER WETMORE,
Assistant Secretary.

DR. CHARLES G. ABBOT,
Secretary, Smithsonian Institution.

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REPORT ON THE PROGRESS AND CONDITION OF THE UNITED STATES NATIONAL MUSEUM FOR THE FISCAL YEAR ENDED JUNE 30, 1935

By Alexander Wetmore

Assistant Secretary of the Smithsonian Institution, in charge of the National Museum

OPERATIONS FOR THE YEAR

APPROPRIATIONS

Funds for the maintenance of the United States National Museum for the fiscal year ended June 30, 1935, were provided by appropriations carried in the Executive and Independent Offices Act dated March 28, 1934. In addition, under the economy provisions of the same act, there was made an indefinite appropriation amounting to 5 percent of the basic salaries on the salary rolls to cover the return of a portion of the pay reduction in force at the close of the previous fiscal year. Further provision was made in Public Resolution no. 3 of the 74th Congress, under date of February 13, 1935, for the restoration on April 1, 1935, of the final 5 percent, so that from that date all salaries were restored to the base prevailing when the 15 percent reduction was made. The Museum allotments are summarized as follows:

Preservation of collections:		
Appropriated	$537,839	
Transferred to Treasury Department	815	
		$537,024
Maintenance and operation		132,622
Printing and binding		6,384
Total, regular appropriations		676,030
For salary restoration:		
Preservation of collections		35,569
Maintenance and operation		4,472
Total available for year		716,071

The amount available for the Museum for 1933 was $61,200 more than for 1934. Of this sum, $2,755 was an increase in the allotment for printing and binding, while the remainder, $58,445, represented the additions to the salary rolls required under the provisions for

restoration of pay made by the Congress. The transfer of $815 to the Treasury Department covers a contribution to the recently organized division of disbursements for expenses in connection with the drawing of checks and similar matters formerly managed in the fiscal office of the Museum.

The only slightly increased allotment for printing and binding was little beyond the amounts absolutely required for the annual report and for blanks, forms, labels, and similar routine printing. Researches on the extensive collections of the Museum form important contributions to all branches of science and are of wide application in the progress and welfare of our country. At present, while our research work progresses steadily, only a very small fraction of the new information gained can be issued because of lack of funds for printing. The result is a definite public loss. With regard to binding, our scientific books and periodicals are in constant official use. Unless they are properly bound they are destroyed by wear, pages become detached, and small items, in spite of every care, are lost. Replacements can be made only at considerable expense and in some cases cannot be supplied at all, so that our files become incomplete. Restoration of an adequate fund for printing and binding, therefore, is an immediate and imperative need.

Additional personnel for the Museum also is a constant need, and there is shortage of necessary help in many divisions. In several divisions no clerical help is provided, and the curator in charge is required personally to type memoranda and letters and to perform other miscellaneous tasks of a purely clerical nature that should be done by assistants, leaving the time of the professional worker free for attention to the collections under his charge and for research. Also, more professional help is required in a number of divisions. The collection of corals, for example, has no separate curator but is handled under the division of mollusks, where the scientific personnel is fully occupied with other tasks. In the division of fishes, one of our largest and most difficult collections has only one curatorial position, and in other divisions, as textiles and graphic arts, additional professional service is essential.

To provide adequate watchman service a number of guards should be added, and several new positions should be established for the proper handling of visitors. At present it is possible to give our force excused time in part only as compensation for Sunday and holiday service. With the men now available the Aircraft Building has to be closed all day on Sundays, and the other buildings are open only in the afternoon on Sundays. Sunday opening for the entire day is desirable and is frequently urged on behalf of the many thousands of visitors who come to Washington for week-end trips. As these persons in many cases must leave for home Sunday after-

noon, they are barred from the profit and enjoyment of our exhibits, which are among the most important in the city.

At present the Museum char force is employed 3 hours each evening in cleaning offices, laboratories, and exhibition halls. In recent years exhibition cases have doubled in number, resulting in much more glass to clean, and laboratories have been filled to overcrowding, making the necessary work of cleaning more difficult and complicated. To care for this situation the period of labor should be increased from 3 to 5 hours daily. Under present circumstances the buildings cannot be kept properly cleaned.

Another matter deserving most serious consideration is that of the status of salary of the members of the staff. Though the elimination of the 15 percent reduction in pay has placed all in much better situation, remuneration for most is low when the present high costs of living are considered. Promotions for efficiency in service have not been possible for several years, and at present funds for that purpose are not available. The financial assistance afforded by the return of the general pay cut has been appreciated by all but should be supplemented now by step-ups, particularly for the many on our staff who after several years of service still stand at the entrance salaries in their grades. Such promotions are important not only for the money concerned but for their effect on the morale of the personnel, particularly among the lower-paid groups.

COLLECTIONS

The material added to the collections during the year was valuable and varied and represented many kinds new to our series. The larger part as usual came through gift from patriotic Americans and organizations who have placed in the National Museum their most important gatherings in order that they might be preserved as permanent contributions to science, history, or art. Valuable material also came from expeditions, financed in the main by the Smithsonian Institution.

New material came in 1,794 separate accessions, with a total of 296,468 specimens divided among the five departments as follows: Anthropology, 3,758; biology, 258,692; geology, 28,528; arts and industries, 3,808; history, 1,682. Statement regarding some of the more important additions will be found in the reports of the departments that follow, and all are noted in the accession list. The total increase for the preceding year was 333,874 specimens of all kinds.

For examination and report 1,375 lots were received, the larger part being geological and botanical material. Part was returned by request to the senders, when it was not consumed during identifi-

cation and analysis, and part was retained for the collections under arrangement with the donors.

Gifts of duplicates to schools and other educational institutions numbered 4,039 specimens, including material from all departments except history. Exchanges of duplicate materials with other institutions and individuals totaled 17,194 specimens, and 26 specimens were transferred officially to other Government departments. Loans to workers outside of Washington numbered 17,783 individual specimens.

Following is a summary of specimens now covered in the Museum catalogs:

Anthropology	679,552
Biology	11,330,742
Geology	2,186,983
Arts and industries	124,330
History	495,709
Total	14,817,316

EXPLORATIONS AND FIELD WORK

Field explorations were conducted on approximately the same scale as last year—still considerably reduced from normal through the continued curtailment in Federal appropriations and through the assignment for other purposes of funds usually available from the private income of the Smithsonian Institution. The field work done was financed mainly through grants from the invested funds of the Smithsonian Institution. Some additional assistance came from outside sources and certain projects of an archeological nature were continued under money from the Public Works Administration. Donations from interested friends also helped to make the work more effective and thorough. Additional funds for field investigations are one of the standing needs of our organization.

From June 23 to December 19, 1934, Herbert W. Krieger, curator of ethnology, was engaged in archeological field work in the Columbia River Valley near Bonneville, Oreg. This project was made necessary by the impending flooding of the valley of the Columbia River in this area through the impounding of its waters by the great dam now being constructed at Bradford Island. The lake to be formed of the Columbia River through the construction of the Bonneville Dam will extend upstream to a point above The Dalles. Archeological investigation of the region to be flooded was important scientifically because of the extensive aboriginal settlement in this area. The project was made possible through an allotment of P. W. A. funds to the United States Bureau of Indian Affairs, and the work was carried on through cooperation of that bureau. Excavation of former Indian village sites in the immediate vicinity of the Columbia

River and of burials on the islands was instituted over an area extending from Prindle, Wash., to above The Dalles. Personnel was limited to laborers and informants from the immediate vicinity. A large collection of artifacts was made and forwarded to the National Museum, and an elaborate set of drawings and maps was prepared. It is too early to announce the scientific results of the projects, as the collections are still under study. At no site excavated, however, was there revealed evidence of cultures foreign to that of the historic tribes of the area. Furthermore, it became clearly evident as work progressed that there had been in prehistoric days no appreciable cultural influence emanating from those coastal tribes whose totemic art formerly extended from the Puget Sound area northward, reaching its highest development among the historic tribes of southeastern Alaska. The archeological evidence recovered shows that the prehistoric Chinookan tribes of Bonneville and vicinity were almost wholly associated culturally, at first, with the more sedentary Plateau tribes, and later with the roving-horse culture from the Great Plains.

Search for new light on early Virginia tribal life was prosecuted through the year by both Mr. Krieger and Henry B. Collins, Jr.; by the former at Indian village sites along the lower Potomac River on both the Maryland and Virginia shores, and by the latter at former Indian village sites west of a line extending from Washington to Richmond, Va. Mr. Krieger explored shore-line shell-heap cultures, while Mr. Collins investigated traces of eastern Indian culture in historically eastern Siouan territory at sites along the Rappahannock and Rapidan Rivers.

From November 7 to December 11, 1934, Frank M. Setzler, assistant curator of archeology, accompanied Dr. John R. Swanton, ethnologist of the Bureau of American Ethnology, by automobile through Virginia, North Carolina, South Carolina, Georgia, and northwestern Florida. The purpose of this work was twofold: (1) To seek first-hand information concerning the route traveled in 1539 and 1540 by the first Spanish explorer in this territory, Hernando De Soto; and (2) to examine vestiges of certain Indian villages mentioned by the chroniclers of the De Soto expedition. Data assembled at the several sites visited surpassed expectations; they will be presented by Dr. Swanton in a future Smithsonian report.

Mr. Setzler was detailed from June 18 to 30, 1935, to the Bureau of American Ethnology and was sent to Macon, Ga., to consult with Dr. A. R. Kelly, in charge of important local archeological excavations, and with representatives of the National Park Service concerning recent discoveries that may lead to a definite chronology not only for the Macon mounds but possibly for the entire southeastern culture area.

Dr. Aleš Hrdlička, curator of physical anthropology, spent June, July, and August 1934 on Kodiak Island, Alaska, excavating at the same site at which he worked in 1932. Five students aided him in this work: Harold L. Zickefoose, C. T. R. Bohannan, Robert H. Heizer, Thurman MacRae, and I. H. Zarbell. Dr. Hrdlička worked again at this site during the field season of 1935 with the aid of eight students. Important and highly valuable collections have resulted. The materials have not as yet been completely studied, and only general conclusions as to results have been stated by the curator in his report for the 1934 Smithsonian explorations pamphlet.

Dr. Waldo L. Schmitt, curator of marine invertebrates, was invited again by Capt. G. Allan Hancock to accompany a Pacific expedition on the yacht *Velero III*. The party left Los Angeles on November 23, 1934, and worked as far south as Independencia Bay, Peru. During the cruise collections and studies were made in various localities on the west coasts of Mexico, Central America, and South America, including the Galapagos Islands and the bird islands of Peru. Six foreign countries and the Canal Zone were visited, and several thousand specimens, chiefly crustaceans but including also mammals, birds, reptiles, and geological specimens, were obtained for the Museum. Dr. Schmitt also collected material, including accessories, for a biological group of the Galapagos land iguana.

Dr. Doris M. Cochran, assistant curator of reptiles and batrachians, was detailed to visit Brazil to study in the field Brazilian amphibians, of which the Museum has had no noteworthy accessions since the Wilkes exploring expedition nearly 100 years ago. What is left of type material from that expedition can be interpreted only by comparison with fresh specimens from the type localities. In addition, the more recent work on the same subject by Dr. Adolpho Lutz at the National Museum in Rio de Janeiro required examination. Through the kind assistance of Dr. Lutz and Miss Bertha Lutz, Miss Cochran was enabled to accomplish this task and returned with a collection of many thousand specimens. In addition to nearly 1,600 frogs, these included mammals, birds, reptiles, fishes, insects, marine invertebrates, and enthnological material mostly collected personally, but some presented by Brazilian scientists. Contacts made with local scientific authorities will prove of value and interest to the Museum in the future. Miss Cochran sailed on January 8 on the *American Legion*, arriving in Rio de Janeiro on January 18, where she worked with Dr. Lutz at the Instituto Oswaldo Cruz almost steadily for the next 7 weeks, making short 1-day collecting trips in the region nearby. From March 11 to March 28 she traveled in Minas Geraes with Dr. and Mrs. Emmanuel Días and the collector Joaquim Venancio. Extensive collections of frogs, fishes, and in-

sects and some reptiles, mammals, and birds were obtained. On April 22, Miss Cochran went to São Paulo, visited the Museum Nacional and the Instituto Butantan, and collected at the Alto da Serra de Cubataõ Biological Station with a 1-day trip to Santos. The remainder of the time (after the return from São Paulo on April 29) was spent in Rio de Janiero, except for 5 days at Nova Friburgo in the mountains that parallel the coast. Miss Cochran left Brazil on May 23 and arrived in New York on June 6.

Gerrit S. Miller, Jr., curator of mammals, spent several weeks from December to February studying the fauna of the outlying keys of southern Florida and making extensive collections of mammals, reptiles, amphibians, and other materials. He obtained valuable data relating to the variation, distribution, and origin of this fauna.

Dr. Hugh M. Smith, who over a period of many years has enriched the Museum by the results of his explorations in Siam, returned to Washington and brought with him large collections of outstanding interest in mammals, birds, reptiles, and fishes, in addition to important contributions to other branches of the natural history of Siam. His explorations in Siam came to a close in October 1934 after a collecting trip during August and September to the rugged mountainous district in western Siam northeast of Chiengmai, where many interesting birds and mammals were obtained.

Dr. D. C. Graham, from his headquarters at Chengtu, capital of the province of Szechwan, China, as a result of excursions during which he obtained valuable collections, has further enriched the divisions of mammals, reptiles, and insects.

Jason R. Swallen, of the section of grasses, brought to a close a successful period of exploration for grasses in Brazil, during which about 8,000 specimens were obtained. The details of this work were published in the Smithsonian exploration pamphlet for 1934.

Mention also may be made of the local work of members of the staff concerned with the biota of Maryland and Virginia. Thus Dr. G. S. Myers and E. D. Reid made a number of trips collecting and studying fresh-water fishes. Dr. Paul Bartsch during numerous excursions throughout the year made extensive collections of mollusks, amphibians, birds, and other specimens with special reference to the fauna of the District of Columbia; and Austin H. Clark continued studies of the butterflies of Virginia, visiting 54 counties in the State.

The work of Dr. Alan Mozley under the Walter Rathbone Bacon traveling scholarship was concluded this year. As it was not possible to obtain permission from the Russian authorities to collect further in Siberia, Dr. Mozley worked during the season of 1934 in the arctic and boreal regions of Sweden.

During the summer of 1934, Prof. C. E. Burt, of Southwestern College, Winfield, Kans., was engaged in field work in Mississippi,

Louisiana, and Texas, with the special purpose of collecting a series of turtles for the Museum. The intricate problems involved concerning the relations and distribution of the various species of soft-shelled turtles of the region require for their solution large series from many localities. In spite of the drought in Texas and adjacent territory much valuable material was received.

C. W. Gilmore, curator of vertebrate paleontology, visited Arcadia, Fla., in March to investigate the reported discovery of a Pleistocene mammoth skeleton. It was found that the skull, tusks, and other important parts had been washed out before discovery and that the bones remaining in the bank, consisting largely of vertebrae and ribs, were not well preserved. Near the close of the year Mr. Gilmore left for Montana to assume charge of an expedition into the Judith River (Upper Cretaceous) of that State. Search was to be made for dinosaur material that may be of value in studying some of the earlier described specimens from this same region. The work continued later in other areas.

Field work at the fossil quarries near Hagerman, Idaho, under the direction of Dr. C. L. Gazin, assistant curator of vertebrate paleontology, was briefly mentioned last year. The expedition met with gratifying success, the material acquired nearly equaling the combined previous collections from the same locality. Fossil remains of the horse *Plesippus* formed the bulk of the collection, although skeletons of peccaries and skulls and other bones of antelopes, mastodons, beavers, otters, and birds were obtained.

Dr. W. F. Foshag, curator of mineralogy, spent 4 months in Mexico collecting minerals under the auspices of the Roebling fund. He visited important mining districts in the Sierra Madre of western Chihuahua and contiguous regions and in southern Mexico. Collections were made at many localities and included representative ores and rocks of several important districts. Many fine mineral specimens, including unique pyrrhotite crystals, were obtained.

E. P. Henderson, assistant curator of mineralogy, in May investigated reports of meteorites and collected minerals in Arkansas and southern Kansas. In June he worked at Amelia, Va., in cooperation with the Mineralogical Museum of Harvard University, when a portion of the ore dumps of the old Rutherford mica mine was worked for rare minerals. A number of fine specimens were obtained.

Dr. G. A. Cooper, assistant curator of stratigraphic paleontology, in July 1934, with a party of geologists from the Geological Survey, studied the region near Phillipsburg, Quebec, and collected many fossils. In company with Dr. A. Warthin, of Vassar College, Dr. Cooper visited the lower peninsula of Michigan to investigate the Devonian strata near Alpena. He studied additional territory underlain by related rocks in southwestern Ontario, northwestern Ohio,

and western New York. In addition to the materials acquired, this trip resulted in the definite determination of the age equivalence of the Traverse group of the Middle Devonian, as exposed in eastern Michigan, with the Hamilton rocks of southwestern Ontario. Early in October, Dr. Cooper, with R. D. Mesler, of the United States Geological Survey, collected fossils at Batesville, Ark., making various stops en route in Virginia, Tennessee, and Arkansas. A large number of well-preserved fossils resulted from this trip.

ASSISTANCE FROM THE FEDERAL EMERGENCY RELIEF ADMINISTRATION

Following the termination of the Civil Works Administration project in February 1934, application was made to the District of Columbia Government for similar assistance under the Federal Emergency Relief Administration in order to continue useful work on the national collections. On November 1, 1934, the assignment of personnel by the District was initiated. For the remainder of the year, 75 workers, 33 women and 42 men, were so assigned. All came through the District of Columbia Federal Emergency Relief Administration office, which carried the responsibility for payment for services. The Smithsonian Institution was responsible for supervising the work, maintaining records of work accomplished, and preparing time books. Supplies and material required were purchased from the regular appropriations. As before, the work was concerned largely with making up an arrearage in connection with the handling of the national collections and was limited to preserving specimens, books, and records, and increasing their usefulness for study and scientific research.

Work performed under the different activities in terms of man-hours is summarized below:

	Man-hours
Checking, labeling, and repairing library material	5,127
Preparing drawings and photographs	756
Typing notes and records	5,465
Performing miscellaneous work on specimens, including arranging, cataloging, checking, labeling, and numbering	18,676
Model making and repairing	459
Preparing and mounting specimens	2,342
Labeling and drafting	396
Total	33,221

Though our small curatorial staff was required to give considerable time to the supervision of the work, definite improvement was made in the arrangement and preservation of records and specimens. The profitable results attained were in no small measure due to the

cooperative attitude of the F. E. R. A. office of the District of Columbia, which gave every assistance in the assignment and transfer of personnel.

EDUCATIONAL WORK

The National Museum during the year continued its customary activities in educational lines. Our exhibition halls display great series of objects so arranged as to demonstrate facts of many kinds, on subjects ranging from the tools and dress of primitive man to complicated modern machinery, examples of the life of strange lands, of the elements that compose the earth, fossil animals and plants of former ages, and many other things. Descriptive labels accompany all these, and there is constant change to keep them properly arranged and up to date. The whole serves as a compendium of reference to the student or as an attractive display to the one of more casual interest, from which all may profit according to their desires.

In addition, the Museum is constantly active in the dissemination of knowledge in response to many hundreds of inquiries that come by mail or from visitors. Classes from the city schools are guided through the halls, and groups of students from a distance are given similar service. Although the Museum does not maintain regular series of lectures, members of the staff are called on frequently to address meetings. Students throughout the country interested in definite problems come to work with our collections and libraries, and frequently workers from abroad are engaged in investigations here that sometimes continue for months. From this it may be seen how widely varied is the range of our educational activities and how extensive the field that they cover.

VISITORS

Visitors to the various Museum buildings showed an increase of 377,931 over last year, the total number, 1,841,306, nearly equaling the 1929–30 figure, following a decided decrease during the depression years. The average attendance for week days was 4,834 and for Sundays 6,467. The number of visitors to the Smithsonian Building on week days totaled 250,287 and on Sundays 56,953; to the Arts and Industries Building 646,108 on week days and 152,427 on Sundays; to the Natural History Building, 472,789 on week days and 133,356 on Sundays; and to the Aircraft Building, 129,386 on week days, closed on Sundays. Table 1 shows the number of visitors during each month for the year. The 307,739 visitors during April 1935 is the largest number ever recorded for a single month.

TABLE 1.—*Visitors to the Museum buildings during the year ended June 30, 1935*

Year and month	Smithsonian Building	Museum buildings			Total
		Arts and Industries Building	Natural History Building	Aircraft Building	
1934					
July	32, 012	77, 801	57, 307	12, 898	180, 018
August	43, 842	109, 385	70, 208	18, 377	241, 812
September	31, 142	76, 975	57, 857	11, 661	177, 635
October	20, 990	55, 399	44, 913	9, 104	130, 406
November	15, 878	36, 877	35, 830	5, 791	94, 376
December	12, 524	28, 181	29, 752	4, 967	75, 424
1935					
January	9, 638	22, 744	24, 048	4, 533	60, 963
February	11, 324	28, 350	26, 860	5, 005	71, 539
March	16, 924	42, 176	37, 869	6, 369	103, 338
April	49, 437	140, 288	98, 592	19, 422	307, 739
May	25, 953	87, 649	60, 173	15, 391	189, 166
June	37, 576	92, 710	62, 736	15, 868	208, 890
Total	307, 240	798, 535	606, 145	129, 386	1, 841, 306

LIBRARY

The year was marked by noteworthy progress in strengthening, reorganizing, and making more readily available the library of the National Museum. The accessions numbered 1,639 volumes, 8,697 parts of volumes, and 985 pamphlets and charts—a total of 11,321 publications—which increased the size of the library to 88,377 volumes and 112,693 pamphlets. These comprise the main natural-history and technological collections and the 35 sectional libraries in the offices of the curators and their assistants. Most of the additions came, as usual, by regular exchange, gift, and purchase, although 2,224—631 more than in 1934—were found in the west stacks of the Smithsonian Building, where the sorting and arranging of a great mass of scientific material were continued during the year, or were obtained by exchange in response to special requests. Many important items were received as gifts from various members and associates of the scientific staff. The number of new exchanges established was 107—an increase of 16 over the previous year. Special mention should be made of the generous cooperation of the Peabody Museum of Harvard University in an arrangement for the exchange of duplicate publications, whereby the National Museum received 134 items lacking in its sets. Large sendings also came from the Franklin Institute and from several prominent research institutions abroad. The outstanding purchase of the year was the "Deutsche Südpolar-Expedition, 1901–1903", Berlin, 1905–1931, in 12 volumes.

Besides keeping up the current work of the library, the staff supervised the activities of a group of Federal Emergency Relief Administration workers and undertook a number of special tasks in both the main and the sectional libraries. They also rendered considerable assistance to the libraries of the Bureau of American Ethnology, the National Gallery of Art, and the National Zoological Park. They purchased hundreds of books and periodicals recommended by the curators, and cooperated with the publications divisions of the Smithsonian Institution and National Museum in maintaining and extending the exchange service in the interest of the library. They made 8,709 periodical entries, cataloged 2,592 publications, and added 21,896 cards to the catalogs and shelf lists. They filed in the natural-history library 469 Wistar Institute cards and 3,774 Concilium Bibliographicum cards of the author set, and distributed 8,871 of the systematic set of the latter to the curators for their files. They circulated among the scientific staff and their assistants 9,636 publications and sent 4,233 to the sectional libraries for shelving. They borrowed 2,489 volumes from the Library of Congress, especially the Smithsonian Deposit, and 442 from other libraries. Loans to other libraries numbered 436—nearly four times as many as in 1934. Owing to the lack of funds only 101 volumes were bound. It is unfortunate that the library has again fallen into arrears in its binding. To safeguard its rich collection of periodical literature, many of whose unbound items might otherwise become seriously damaged or irreplaceably lost, funds should be provided at the earliest possible time for bringing the binding up to date and thereafter for carrying it forward promptly year by year.

The reference and bibliographical service of the library to the scientific staff and their associates and to inquirers from outside, both in person and by correspondence, was extensive and frequently involved protracted study at the Library of Congress or elsewhere of the problems in question. The library is being called upon more and more for this type of service.

Among the special projects undertaken, a few may be mentioned. The staff, assisted by several of the F.E.R.A. workers, continued the rearranging of the main technological collection; sorted and reorganized the sectional libraries of engineering and administration; examined the collection of old maps that had accumulated in the Arts and Industries Building, selecting a number for the permanent files of the Museum and transferring the rest to the Smithsonian deposit in the Library of Congress; withdrew 6,512 reprints from the shelves in the natural-history library, sorted them, and sent them for filing to the sections concerned, thus releasing some much-needed shelf space; and continued several of the projects left unfinished by the C. W. A. employees a year ago, including the

mounting and classifying of aeronautical clippings, labeling of books and pamphlets, and copying of catalog cards.

The usefulness of the library in the Old Museum, with its charging and reference desk, again was demonstrated in respect especially to the technological and office collections. The attendants entered 3,448 periodicals, prepared and filed 1,683 catalog cards, received 2,252 visitors, and made 2,817 loans.

Of the needs of the library three are most urgent: (1) More funds for binding; (2) a larger permanent staff, especially of catalogers and typists, to enable the library to meet the growing demands of the curators, and (3) increased and more suitably arranged working space for the library force and more stack room for the rapidly increasing collections.

There was one change in the staff during the year. Miss Margaret Moreland (now Mrs. George C. Rodgers), senior stenographer, was transferred, after 5 years of excellent service, to the New York office of the Civil Service Commission. She was succeeded by Miss Lucile A. Torrey, a graduate in arts of Tulane University and in library science of the Louisiana State University.

PUBLICATIONS

On account of the greatly reduced allotments for printing for the Museum, the publications output of the editorial office was small. Only 8 publications were issued during the year, including the annual report for 1934 and 7 papers from volume 83 of the Proceedings. These are listed at the end of this report.

In order to reduce printing costs, beginning with volume 83 of the Proceedings covers for separate numbers were omitted. Another change made, beginning with volume 83, was the numbering of pages, figures, and plates consecutively throughout each volume, instead of each article separately, as has been the practice for many years. The new method will not only simplify literature citation of the papers but also will make it possible for each volume to have an index.

The distribution of volumes and separates to libraries and individuals on the regular mailing lists aggregated 15,277 copies; while in addition 11,315 copies of publications issued during this and previous years were supplied in response to special requests.

During the year 255,879 forms, labels, and other items were printed, and 119 volumes were bound.

Index of Museum publications.—As the other work of the editorial office permitted during the year, the editor, Paul H. Oehser, and his assistant, Miss Gladys O. Visel, carried on the work of indexing the publications of the National Museum, which has now been in progress 2 years. The work of alphabetizing the index cards was aided since

November 15, 1934, by the services of one F. E. R. A. employee. Twenty-two Bulletins and eight volumes of Proceedings were indexed during the year, making the indexing now complete through Bulletin 43 and Proceedings volume 16. Approximately 30,000 cards were added to the index during the year, making a total of about 115,000. In addition, 79,000 cards were typed but at the close of the year had not been entered in the master index and duplicate entries combined.

The general plan of this index is: (1) To include all the publications of the National Museum in one index; (2) to bring it down to date as rapidly as the other publication programs permit; and (3) eventually to publish it (at least some of it by 1946, the Smithsonian Institution Centenary). The index in its current form is available to the curators and others who may have occasion to use it.

PHOTOGRAPHIC LABORATORY

During the year the photographic laboratory made 3,348 negatives, 17,232 prints, 725 lantern slides, 292 enlargements, and 2 transparencies; developed 41 rolls, 18 film packs, and 98 cut films; and mounted 72 prints. This work represents a slight increase over that done last year, except in field work, which decreased. It includes, in addition to work done for the Smithsonian proper and the National Museum, photographic needs supplied through a cooperative arrangement to the Bureau of American Ethnology and the National Gallery of Art.

BUILDINGS AND EQUIPMENT

Repairs and alterations.—Chief among the repairs to the Museum buildings during the year were the repairing of the cornice of the dome of the Natural History Building; installing a new entrance to and remodeling of the women's room in the foyer; redecorating the entire quarters of the division of mollusks; remodeling the diatom laboratory in the Arts and Industries Building; renovating rooms in the divisions of history and engineering; installing an operating device for opening and closing the ventilating windows in the Aircraft Building; and a great deal of necessary repainting in all the buildings.

Heat, light, and power.—The Museum's plant for producing heat, light, and power was not operated at all during the year, since the heating mains have now been connected with the Government Central Heating Plant and since all needed electricity is now purchased. For heating the Smithsonian group of buildings, 59,401,000 pounds of steam were used. The electric current consumed amounted to 1,244,960 kilowatt-hours.

Ice production.—The refrigerating machine, for manufacturing ice for the Museum buildings, was operated 4,040 hours during the year, producing 437.8 tons of ice at a cost of $652.27, or at the rate of $1.49 a ton (5 cents a ton less than for last year).

Fire protection.—The fire-alarm systems in the several buildings received periodic testing and inspection during the year, and the necessary replacements and repairs were made to put the fire-protection apparatus in good order. Funds did not permit making additional fireproofing of any importance. As has been said in previous reports, the electric wiring throughout the east end of the Smithsonian Building remains in a hazardous condition, and there will be constant danger from fire until it is possible to rewire this section of the building.

Furniture and fixtures.—The furniture added during the year included 17 exhibition cases; 235 pieces of storage, office, and laboratory furniture; and 2,180 drawers, boxes, and frames of various kinds. Equipment condemned consisted of 11 exhibition cases and 45 pieces of storage, office, and laboratory furniture. An inventory of furniture on hand on June 30, 1935, showed 3,765 exhibition cases; 17,757 pieces of storage, office, and laboratory furniture; and 107,858 drawers, boxes, and frames.

MEETINGS AND SPECIAL EXHIBITS

The Museum offers the use of the auditorium and lecture room in the Natural History Building to scientific and educational associations for regular and special meetings and whenever possible assists them in carrying out their programs. During the year 76 such meetings were held, with a total attendance of about 5,840 persons. Noteworthy were lectures by Dr. Aleš Hrdlička, on "New Light on the Peopling and the Cultural Developments of the Far North"; Dr. William A. White, on "Organic Structure"; Dr. James R. Angell, on "Popular and Unpopular Science"; Dr. Walter S. Adams, on "The Sun's Place among the Stars"; and Knud V. Hansen, on "National Parks of Denmark."

Special exhibits.—The foyer of the Natural History Building was utilized during the year almost continuously for a series of 17 special exhibits conducted by various educational, scientific, and Government agencies, as follows:

July 6 to 31, 1934: Exhibit of water colors and drawings in black and white made by Clayton Knight during trips by airplane in the West Indies, Central America, and South America.

September 7 to 30, 1934: Exhibit of British Government publications.

October 5 and 6, 1934: Second annual rose show, sponsored by Potomac Rose Society.

October 10, 1934, to January 2, 1935; Exhibition of paintings and etchings of birds by Dr. Henry Smith Williams and of birds' nests collected by him.

January 10 to 31, 1935: Exhibition of oil paintings by Prof. Emil Jacques, of the University of Notre Dame.

January 10 to 31, 1935: Exhibit of water-color studies of Mexican and Massachusetts scenes by Alexander Buel Trowbridge, architect, of Washington, D. C.

February 5 to March 16, 1935: Display of Indian sand paintings, reproductions of Navaho sand altars, obtained for the Smithsonian collection through the generosity of Mrs. Charles D. Walcott.

February 15 to March 15, 1935: Exhibit of black and white drawings of Boulder Dam, Colo., by William Woollett.

March 16 to 31, 1935: Exhibit of photographs of trees, sponsored by the American Forestry Association "to stimulate interest in the beauty of trees in the American landscape."

March 18 to 20, 1935: Exhibition showing various activities of members of the District of Columbia Dental Society, held in conjunction with the Five State Post Graduate Dental Clinic.

April 4 to 30, 1935: Exhibit of oil paintings by Misses Elena and Bertha de Hellebranth, under the patronage of His Excellency John Pélenyi, Minister from Hungary.

April 22 and 23, 1935: Exhibit of aerial photographs held in connection with the meeting of the American Society of Photogrammetry.

May 2 to June 3, 1935: Exhibit of Egyptian pastels by Howard Fremont Stratton. Opening of exhibition on May 2 under patronage of His Excellency Ibrahim Ratib Bey, Minister from Egypt, Sesostris Sidarouss Pasha, former Egyptian Minister, and Marcus Simaika Pasha, founder and director of the great Coptic Museum at Cairo.

May 1 to June 3, 1935: Exhibit of photographs showing progress of construction under the Public Works Administration program.

May 27 to June 1, 1935: Exhibition of architectural designs submitted for the proposed new building for the Federal Reserve Board, under the auspices of the Commission of Fine Arts.

May 27 to June 30, 1935: Display of collection of natural-history and ethnological specimens collected by Dr. Hugh M. Smith in Siam.

June 4 to June 20, 1935: Exhibition of oil paintings, water colors, and drawings made by artists enrolled in the Civilian Conservation Corps camps. Preview under auspices of director of Emergency Conservation Work and members of his advisory council.

CHANGES IN ORGANIZATION AND STAFF

No major changes were made in the organization of the National Museum during the year, and the changes in the staff were comparatively few.

Dr. Edward A. Chapin, of the United States Bureau of Entomology and Plant Quarantine, was appointed on July 1, 1934, as curator in the division of insects, succeeding the late Dr. J. M. Aldrich. In the division of mollusks, Dr. Joseph P. E. Morrison was appointed senior scientific aid on August 2. A realignment of the work in the division of graphic arts resulted in the appointment of Charles Allen Sherwin as scientific aid on May 20, 1935,

after a temporary service of 6 months. A vacancy in the division of textiles was filled by the appointment of Miss Mary E. Dillingham as junior scientific aid on October 15, 1934.

Three Museum employees were transferred from the active to the retired list during the year, as follows: Philip N. Wisner, assistant clerk, on November 30, 1934, through disability; Mrs. Amelia Turner, under photographer, on June 30, 1935, through section 8 (a) of the Economy Act; and Mrs. Rachel Turner, charwoman, on August 31, 1934, through age.

The Museum lost through death 2 of its honorary staff members and 7 of its active force. The honorary members—both long associated with scientific work of the Museum—were Dr. Albert Mann, custodian of diatoms since January 8, 1913, who died on February 1, 1935, and Dr. David White, honorary associate curator of paleobotany since May 23, 1905, who died February 7, 1935. Those under paid appointment were Peter Hanson, machinist, on March 6; Frank W. Mullen, electrician's helper, on February 18; Michael Colohan, John J. Gallagher, and Harrison M. Kinnison, guards, on July 11, 1934, December 9, 1934, and June 4, 1935, respectively; Mrs. Marie Ellis, charwoman, on March 29; and Mrs. Lula Bryant, attendant, on April 16.

DETAILED REPORTS ON THE COLLECTIONS

DEPARTMENT OF ANTHROPOLOGY

(WALTER HOUGH, *Head Curator*)

Explorations for the year played an important part in the extension of scientific knowledge of the habits and customs of man and the acquirement of much valuable cultural material. At the close of the year work was being carried on at Kodiak Island, Alaska. Field-work was also conducted in the Bonneville Dam area in Washington. Much material was contributed by the various explorations of the Bureau of American Ethnology. In the environment of the Capital, especially in Virginia, examination of several surface sites was carried on.

ACCESSIONS FOR THE YEAR

The division of ethnology received 53 accessions and 579 specimens as compared with 918 specimens last year, including small coiled baskets of baleen made by the Point Barrow Eskimos, a carved and inlaid slate tray from the Haida of Queen Charlotte Islands, British Columbia, a large potlatch dish of carved wood, and an old Navaho chief's blanket, all presented by Mrs. Charles D. Walcott. A carved slate tray from the Haida of Queen Charlotte Islands, presented by Senator and Mrs. Jesse H. Metcalf, is noteworthy.

North American Indian specimens received include a garter of woven buffalo hair; carved wooden mask of the Haida Indians of southeastern Alaska; woven blanket and six sashes collected among the Tarahumare Indians of Mexico; an elkskin with painted pictographic scenes depicting the feats of the Shoshone chief, Washakie—all acquired through purchase; a Navaho Indian silver necklace, the gift of Charles Shafer; beaded belts, moccasins, and other objects, from the Delaware and Osage Indians, the gift of Miss Florence C. Morse; cradleboards, moccasins, and charm pouches collected during the early eighties from Plains and Pueblo Indians and presented by Lt. Col. James H. Van Horn, United States Army; a decorated rawhide parfleche from the Yakima Indians; and Californian and southeast Alaskan Indian twined baskets, the gift of Mrs. Alice Geddes; and, finally, a commemorative figure of carved and painted balsa wood from the San Blas Indians of Panama, the gift of Commander P. J. Searles, United States Navy.

From the more remote Eskimos of Nunivak Island, Alaska, there was accessioned a gut parka collected by Dr. Simon W. Merritt,

while from the distant Brazilian Matto Grosso came a collection of weapons of the fierce Parintintin Indians, the gift of Dr. B. Youngblood; and from the head hunters of eastern Ecuador, the Jivaro, a collection of textiles and objects of personal adornment, a transfer from the Bureau of American Ethnology.

The continent of Africa, as in former years, is represented. C. C. Roberts added to his West African collections, and Benjamin H. Lepow gave a collection from Italian Somaliland. Liberia, West Africa, is represented in a collection of six pieces of iron money, the gift of the Rev. Thomas R. Hazzard.

Oceania is represented in current collections by specimens from the Fiji Islands, from Samoa, and from Australia, the gifts, respectively, of Miss Viola L. Cooper, Dr. Casey A. Wood, and Mrs. Alice Geddes.

Malaysia is well represented in collections from the Philippine Islands, consisting of an Igorot fire piston, wooden spoons and wooden stamps, stone, wooden, clay, and grass pipes, the gift of Capt. Henry T. Allen, United States Army; Moro krisses and daggers and decorated woven abaca cloth, the gift of Mrs. Alice Geddes.

As in former years, ethnological collections presented by Dr. Hugh M. Smith, fisheries adviser to the Royal Siamese Government, were extensive. The accessions include woven and decorated cloth and other objects of such obscure peoples as the Karen, Ubon, Muso, Lao, and Melau. Included are also small collections from the Annamese and Burmese.

Asia, "the mother of civilizations", was niggardly in dispensing with her treasures. With the exception of the Dr. Hugh M. Smith accessions just mentioned, five small lots of objects from that source were received: A Singhalese mahout's knife from Ceylon, the gift of Dr. Casey A. Wood; two "hands" of tobacco, used as currency in Szechwan, China, the gift of the Rev. David C. Graham, of Chengtu; an inscribed clay brick taken from a wall of the first Ming Palace, Peking, China, built between 1400 and 1500 A. D., the gift of Ambrose Swasey; and a collection of Japanese glass net floats that drifted to the coast of Oregon, the gift of Jack Adamson.

Brother Juniper, of the Franciscan House of Studies, presented a pair of sandals such as are generally worn by members of the order in the Orient.

The sections of musical instruments, ceramics, and art textiles received 3 accessions each and 24 specimens in all. An excellent concertina of about 1850 was given by Miss Estelle J. Brereton; an outstanding pitcher, 1793, by Mrs. William Campbell Langfitt; beaded bags, by James Green; and a large point lace shawl, bequest of Miss Gertrude Walden Myer.

The division of archeology received 57 accessions totaling 2,412 specimens, compared with 38 accessions covering 8,337 specimens

last year. This year 9 accessions (326 specimens) were derived from the Old World.

The following are considered the most noteworthy accessions of the year: A plaster cast, presented by the Carnegie Institution of Washington, of the elaborately carved surface of a Maya altar at Quirigua, Guatemala, the original of which was discovered by representatives of the Carnegie Institution in December 1934, and which is regarded as one of the finest examples of aboriginal sculpture recovered from the Maya area; 327 specimens collected for the Bureau of American Ethnology by Dr. William D. Strong from the Bay Islands and the mainland of Spanish Honduras, received as a transfer from the bureau; 214 flint objects from a Paleolithic deposit in Mugharet et-Tabun (Cave of the Oven) at the western foot of Mount Carmel, Palestine, collected by the joint 1933 expedition of the American School of Prehistoric Research and the British School of Archeology in Palestine, deposited by the Archaeological Society of Washington; 1,188 stone artifacts, fragments of basketry, sandals, and other articles collected for the Museum by Frank M. Setzler from two caves in Val Verde County, Tex.; 3 terra-cotta cones from Ur of the Chaldees, Iraq, bearing inscriptions that date them about 2075 B. C., received as a gift from the Bruce Hughes fund; 52 stone implements from South Africa, presented by Wilfred C. Abbott, of Capetown; a pottery canteen from the island of Cyprus, in the Mediterranean Sea, presented by Dr. Walter Hough; 8 earthenware vessels and a figurine from La Palma Island, Santa Maria River, Darien, Panama, a gift from Commander P. J. Searles, United States Navy; 112 ivory and bone harpoon heads from Seklowaghyaget near Gambell, St. Lawrence Island, Alaska, collected and presented by Paul Silook, Eskimo assistant to Henry B. Collins, Jr., during the latter's investigations on St. Lawrence several years ago; 30 Paleolithic implements illustrating the Clactonian industry in the Thames Valley, Kent, England, presented by R. H. Chandler and A. L. Leach. The archeological material collected for the Museum by Dr. A. Hrdlička in 1934 on Kodiak Island, Alaska, had not been cataloged at the year end.

The division of physical anthropology received 16 accessions and 743 specimens, contrasted with 20 accessions and 206 specimens in 1933–34. Among the more important of these are four lots of material, each separately accessioned, from the Civil Works Administration. Of these, 2 lots are from Florida, 1 from California, and 1 from North Carolina. The largest single accession in this division is that from Kodiak Island, collected by the curator, Dr. A. Hrdlička. With this addition to the collections of previous seasons there is now a fine series from Jones Point. An important addition to the collections in view of the age and historical interest is the series of

155 specimens from Megiddo, Palestine, received as a permanent deposit from the Oriental Institute of the University of Chicago. The skeletons collected in southwestern Texas by Frank M. Setzler, although small in number, are of great importance because of the new type and area represented.

INSTALLATION AND PRESERVATION OF COLLECTIONS

The exhibits in the various halls of ethnology received constant attention in regard to insect attacks, dust, and light. Adjustments of installation and new installations were made as required. The value of the foyer for transient exhibits was shown by the exhibition of the series of Navaho sand paintings collected by Mrs. Charles D. Walcott and of the numerous Siamese specimens given by Dr. Hugh M. Smith.

The African animal head trophies in the Herbert Ward collection were repaired and preserved by the department of biology. The bronze statues in this collection were cleaned of dust and treated with oil.

The Zuñi and Apache family groups sent to the San Diego Exposition left two vacant cases, which were reinstalled with large baskets and pottery never before exhibited.

In the division of archeology the staff was wholly occupied with the reclassification of State collections and the installation of new exhibits. In consequence of these efforts the archeological collections from North Carolina, South Carolina, Georgia, Florida, and California have now been entirely reviewed, card records completed where necessary, pseudo-artifacts and useless fragments eliminated, exhibits from these five States revised, and the study series made more accessible to visiting students. The new Georgia exhibit includes, for the first time, material collected by the Bureau of American Ethnology many years ago from such important archeological sites as the Hollywood mound and the famous Etowah group. The series of earthenware vessels from the Province of Chiriqui, Panama, was reexamined, measured, and rearranged both for exhibition and study purposes. Reinstalled exhibits occupy 5 floor cases, 2 wall cases, 7 double-slope top cases, and 2 table cases. Most important among minor additions made to several other exhibits is the model of a unique council house recently disclosed during archeological investigations at Macon, Ga.

To provide space for the cast of a remarkable Maya altar from Quirigua, Guatemala, a gift from the Carnegie Institution of Washington, it was found necessary to reduce by half our exhibits from the Province of Chiriqui, Panama, and from the Casas Grandes dis-

trict, Chihuahua, Mexico; to place in the study series certain other specimens; and to move 4 other cases into reduced space.

The division staff supervised methods designed to insure preservation of precious wooden specimens recovered in 1934 from the muck beneath an important archeological site near Belle Glade, Fla.—artifacts comparable to those exhumed on Key Marco 20 years ago by the late Frank Hamilton Cushing. A number of pottery vessels were restored and placed on exhibit.

Many years will be required to complete the present program of classifying and rebuilding the archeological exhibits. Every effort is being made to incorporate the results of recent discoveries in these exhibits and to arrange each one so as to bring out its full educational value and scientific usefulness and at the same time to attract and inform the hurrying visitor by adding as much color and variety as possible.

As the year came to an end the staff turned its attention toward the extensive collections gathered during the winter of 1933–34 under Civil Works Administration projects in five separate States.

Space available for exhibits in physical anthropology was enlarged so as to include three new cases, in which are displayed the final series of Eskimo and Indian face masks prepared by W. H. Egberts. This series consists of 18 Eskimos, 14 Alaskan Indians, and 21 Blackfoot and Sioux. The many masks of other racial groups already prepared or in the course of preparation should eventually be added to this exhibit. Such records of these racial types are unique and very valuable.

Owing to requirements for the rooms opening on the basement foyer, it was necessary to transfer the collections stored in room 37 to the fourth-floor rotunda. These collections consisted of the greater part of the Whites (Huntington) and Pueblos. In making this shift the Peruvian collection was also transferred from room 342 to the rotunda and part of the Huntington collection from room 37 was substituted in its place in order to make the latter more accessible for cataloging.

Instead of continuing the work of cataloging the Huntington collection as begun by the Civil Works Administration workers, the two relief workers supplied by the Federal Emergency Relief Administration were set to work numbering the many new accessions resulting from C. W. A. field work. At the close of the year all but one of those collections had been finished.

INVESTIGATION AND RESEARCH

Ethnology.—In the division of ethnology Henry B. Collins, Jr., continued investigations of archeological collections from early village sites of the Alaska Eskimo. Problems of his study have to do with chronology and culture sequences of the archeological phases of Eskimo occupation of Alaska and also with geographical correlations. This research project has crystallized in the form of several smaller publications, the major report being still in progress.

Herbert W. Krieger continued research in West Indian and South American Indian cultures. Specific projects and problems in the West Indian and contiguous areas, based on archeological collections obtained by the several W. L. Abbott expeditions, on the Walter E. Roth collections and manuscripts, on the W. A. Archer and other collections, have to do with chronology and culture sequence, espepecially in stone and pottery, and also with the intricate problems of design. One publication, on the diffusion of Amazonian culture traits within the Antillean area, was issued during the year.

Current interest in money prompted Mr. Krieger to study the Museum's resources in primitive money. A manuscript on this subject, fully illustrated, awaits publication.

One of the earliest publications of the head curator, Dr. Walter Hough, published nearly half a century ago, concerns technical methods pertaining to the care and preservation of museum specimens. Notes have been published from time to time by Mr. Krieger in an attempt to bring this subject up to date. These data are now assembled in summarized form in manuscript ready for publication.

Field work in the vicinity of Bonneville, Oreg., has added to our archeological collections a wealth of data on the Pacific Northwest. This is now being studied by Mr. Krieger in connection with material previously collected by him in Oregon and Washington in 1926 and 1927. Manuscript for a report, together with photographs illustrating the collections, will soon be available for publication.

Collections studied by outside investigators include Oceanic art, Christian and other ecclesiastic art, African art, Salish textiles, Navaho costumes, West Indian pottery, Bibles, Bengali palm-leaf manuscripts, Japanese swords and sword fittings, Athapascan (more specifically Kutchin-Han) costumes and other objects of material culture, musical instruments, distribution of certain species of bamboo in America as based on well-established native uses, Roman armor, early American and European bottles and pipes, Navaho silver-work, Navaho sand altars, Pueblo belt weavings, old weaving techniques of the Menominee, paintings of Indian subjects by Catlin, Sharp, Deming, and others, Moro weavings and Malay batik, Siamese and Javanese marionettes of punched leather, Japanese collections

of art and ethnology, quilled designs on skins, Paisley and Cashmere shawls, shellfish hooks, Indian medicines, Eskimo decorative design and chronology, chronology of Navaho blanket design, and color schemes in museum group installations.

J. T. Nicholson received the loan of West African masks for the purpose of making casts of them.

The Bureau of Indian Affairs was assisted in selecting illustrations from our files for a publication on the development of the Indians of southeastern Alaska, and also in the study of old Indian weaving techniques for use in teaching. Consultations were also held with members of the Indian Bureau staff regarding fraudulent sales of pseudo-Indian artifacts. The Museum also cooperated with the Indian Bureau in the salvaging of ancient Indian artifacts from Bonneville, Oreg., and vicinity. Worthy of mention is cooperation with the Bureau of American Ethnology in such projects as identifying W. H. Jackson negatives and in supplying data for use in connection with exhibits for the San Diego Exposition.

The Colonial Dames of America received the loan of Indian costumes and other objects for use in pageantry display at a session in the auditorium of the National Museum. The Oblate Fathers were lent a large number of specimens to illustrate the culture of the primitive peoples, among whom they maintain missions. Other loans and gifts of illustrative ethnographical material were extended to many individuals and organizations.

Eight lots of material were received for examination and report.

Archeology.—The curator of archeology, Neil M. Judd, was occupied throughout the year with the revision of collections and the installation of new State exhibits. The assistant curator, F. M. Setzler, prepared and cataloged the archeological material he recovered in 1933 from two caves along the Pecos River in Val Verde County, Tex.; published a preliminary report on the prehistoric cave dwellers of southwestern Texas in cooperation with Dr. W. D. Strong, of the Bureau of American Ethnology; and prepared a paper entitled "Archeology and Relief", describing in a general way the Smithsonian-C. W. A. archeological projects of 1933–34. He also assisted M. W. Stirling, Chief of the Bureau of American Ethnology, by writing for the appendix to the 1934 Smithsonian Annual Report brief summaries of the C. W. A. archeological projects at Peachtree Mound, near Murphy, N. C., and at one of the sites on the west coast of Florida. The reclassification of the California collections revealed a number of iron specimens requiring immediate preservation treatment, and to these Mr. Setzler devoted attention, using improvised equipment in the division of mineralogy laboratories.

During the year 52 lots of archeological material were received for identification and report and subsequently returned to the owners.

On the occasion of his two visits to Georgia, Mr. Setzler made preliminary studies of the archeological material recovered from the Macon sites. At the same time he assisted several friends of the Institution in classifying their private collections and gathered representative sherd series from the Kolee Mokee, Neisler, Xuala, and Panama City sites.

Physical anthropology.—Dr. A. Hrdlička, curator of physical anthropology, prosecuted research for preparation of a paper on the problem of the origin of the American Indian. He also prepared for publication a paper on the measurements of members of the National Academy of Sciences.

The assistant curator, Dr. T. D. Stewart, studied the vertebral columns of the Pueblo and other American Indian skeletons. He also finished a study of epiphyseal union, and prepared a paper on the subject, and assembled and studied a collection of skeletal remains from the caves of southwestern Texas.

DISTRIBUTION AND EXCHANGE OF SPECIMENS

In the division of ethnology several lots of uncataloged duplicate photographs of Museum specimens were distributed. No exchanges were negotiated and no specimens distributed through transfer. One loan accession, consisting of 39 specimens, was withdrawn.

Five lots of archeological material (70 specimens) were sent out in exchange, as follows: 44 blades, drills, hammerstones, and other articles to J. G. Braecklein, Kansas City, Mo., in exchange for stone and copper artifacts from Nebraska, Missouri, and Arkansas; 22 arrowheads to Dr. Stuart C. Way, San Francisco, in exchange for similar specimens from the Truckee River district in Placer and Nevada Counties, Calif.; and, in return for previous courtesies, casts of antiquities to B. E. McCown, Ironton, Ohio; Edward F. Neild, Shreveport, La.; and S. G. Morley, Santa Fe, N. Mex.

Nine lots (390 specimens) of archeological material were sent as gifts to educational institutions, as follows: 50 potsherds and stone artifacts to the Denver Art Museum, Denver, Colo.; 61 projectile points, hammerstones, blades, and drills to Berea College, Berea, Ky.; 26 Paleolithic specimens to New York University, New York City; 75 stone implements to the University of Tampa, Tampa, Fla.; 7 pottery vessels and stone celts from Panama to the Maryland Academy of Sciences, Baltimore; 148 projectile points and implements to the Wayne County Historical Society, Richmond, Ind.; a cast of the Tuxtla Statuette to the National Museum of Guatemala; 21 stone implements to the Maryland School for the Blind, Overlea, Md.; a lot of Georgia potsherds to the Ceramic Repository, University Museum, Ann Arbor, Mich. In addition, 9 photographs of West Indian pottery and 8 photographs of Arretine ware for study purposes were forwarded, respectively, to Miss H. C. Palmatary,

University of Pennsylvania Museum, Philadelphia, and Dr. Howard Comfort, Haverford College, Haverford, Pa.

Twelve modern pottery vessels from Chiriqui Province, Panama, were transferred from the division of archeology to the division of ethnology.

Natural forms, potsherds, fragments of stone artifacts, and unidentifiable material not suitable for exchange to the number of 1,876 were condemned and subsequently destroyed.

NUMBER OF SPECIMENS UNDER DEPARTMENT

During the year the department received 127 accessions covering a total of 3,758 specimens, which were assigned as follows: Ethnology, 53 accessions (579 specimens); archeology, 57 accessions (2,412 specimens); physical anthropology, 16 accessions (743 specimens); musical instruments, 3 accessions (3 specimens); ceramics, 3 accessions (12 specimens); and art textiles, 3 accessions (9 specimens).

On June 30, 1935, the total number of specimens in the department was as follows:

Ethnology	189,311
Archeology	445,852
Physical anthropology	34,451
Musical instruments	2,077
Ceramics	6,312
Art textiles	1,540
Anthropology (not assigned)	9
Total	679,552

DEPARTMENT OF BIOLOGY

(Leonhard Stejneger, *Head Curator*)

The activities of the department of biology on the whole have progressed satisfactorily in spite of certain unfavorable conditions due to lack of funds for publication and to congestion in housing. Although much time of the regular staff was taken up in supervision of temporary assistants furnished through the Government relief agencies, through this help there was accomplished much useful work impossible to undertake with our regular staff.

Field work was undertaken by several members of the staff. Dr. Waldo L. Schmitt, curator of marine invertebrates, took part in an expedition to the Galapagos Islands, by invitation of Capt. G. Allan Hancock, owner of the yacht *Velero III*. Through a grant from the Smithsonian Institution, Dr. Doris M. Cochran, assistant curator of reptiles and amphibians, was occupied for several months in study and collecting in eastern Brazil, resulting in important and large additions to the collections of the Museum from a region hitherto poorly represented. Gerrit S. Miller, Jr., curator of mammals, spent 2½ months investigating and collecting in southern Florida including several of the important keys.

ACCESSIONS

The number of accessions, aggregating 1,306, with a total of 258,692 specimens, indicates a normal growth in the collections under the department. A special feature of this year's accretions is the large number of genera and species new to the collection. The receipt of much invaluable type material is also noteworthy.

Mammals.—In addition to large and important collections of Siamese and Chinese mammals received from Dr. Hugh M. Smith and Dr. D. C. Graham, respectively, the accessions this year are conspicuous for the many rare species hitherto unrepresented in the Museum. Thus, two specimens of the Saiga antelope from the Kalmuk Steppes of South Russia, one donated by Louis Ruhe, Inc., New York, the other a transfer from the National Zoological Park, are the first representatives of this interesting antelope in the Museum, except an old skeleton in the exhibition series. Through the cooperation of Dr. Doris M. Cochran, two important South American genera, *Scaeopus*, a sloth, and *Brachyteles*, a monkey, were received in exchange from the Museu Paulista, São Paulo, Brazil. Among the 23 mammals collected by Dr. Waldo L.

Schmitt on the 1935 Hancock Galapagos expedition was a porpoise new to the Museum. As an exchange, 28 specimens of primates, carnivores, ungulates, and rodents from Africa, Asia, and South America, all representing forms not hitherto in the collections, were received from the Field Museum of Natural History, Chicago. Of great importance for comparison with Dr. Hugh Smith's Siamese collection, was a collection of 16 mammals obtained from Annam, Indo-China. Mrs. Henry W. Greist presented two tympanic bullae of the bowhead whale from Point Barrow, Alaska, of special interest through the rarity of this species in collections.

Birds.—Approximately 285 species and subspecies new to the collection of bird skins were added during the year, as well as a considerable number new to the collection of skeletons. The generic desiderata in bird skins were reduced by 15, largely as the result of the curator's visit to European museums during the summer of 1934. The new genera included a rare pigeon from New Caledonia, *Phaenorhina;* an equally rare rail from the same island, *Tricholimnas;* an African hawk, *Chelictinia;* several Papuan forms—*Oreopsittacus*, *Campochaera*, and *Oedistoma;* a Brazilian nighthawk, *Heleothreptus;* a thrush from the same country, *Turdampelis;* three Indian birds much needed in connection with our Chinese series—*Urocichla*, *Sphenocichla*, and *Stictospiza;* a peculiar form, of uncertain affinities, generally considered near the helmet-shrikes, *Hypocolius;* and three desirable African birds—*Speirops*, *Neocichla*, and *Rhynchostruthus.* Of the general collections received, special mention is made of 988 Siamese birds from Dr. Hugh M. Smith and 81 specimens of Chinese birds from Dr. D. C. Graham. From the Princeton Museum of Zoology 6 type specimens of Patagonian birds were acquired by exchange, and Dr. S. T. Danforth deposited the type of his *Rallus longirostris manglecola.* From the Museum of Comparative Zoology, Cambridge, Mass., 14 skins of New Guinea birds of forms new to the Museum were received in exchange.

Reptiles and amphibians.—Besides the considerable collections from Siam by Dr. Hugh M. Smith, and from China by Dr. D. C. Graham, a large collection of Brazilian species, especially frogs, was added, partly collected by Dr. Cochran and partly donated by Dr. Adolpho Lutz. The collecting trips of Gerrit S. Miller, Jr., and C. R. Aschemeier in Florida, of Dr. C. E. Burt in Mississippi and Louisiana, and of Dr. Waldo Schmitt in South America added much material needed to fill gaps in the American faunal series.

Fishes.—Sixty-nine accessions, totaling 12,230 specimens of fishes, were received, this being a remarkable increase over the 1,308 accessioned last year; the interest of the material matches its quantity. The fine series of 1,350 Siamese fishes presented by Dr. Hugh M.

Smith deserves first place, coming as it does from an area poorly represented in our fish collection. The largest accession was a gift of 3,357 fishes comprising the major part of the private collection of the assistant curator, Dr. G. S. Myers, and including much North, South, and Central American material of species not, or poorly, represented in the national collection. From S. Y. Lin, of Canton, China, came a gift of 159 fishes from Kwangsi, Kwantung, and Hainan, including paratypes of recently described species. Stuart Abraham presented several fine series of Virginia fishes, and another interesting lot, from western Maryland, was a gift from E. D. Reid and G. M. Boydstun. Gifts of Colombian fishes from Brother Elias, of the Colegio Biffi, Barranquilla; Costa Rican fishes from the Museo Nacional, San José; Texas fishes from Prof. C. T. Reed, of the Texas College of Arts and Industries; and a paratype of a new Alaskan liparid from Arthur Chapman and Allan Delacy, of the University of Washington, added valuable material to the collection. By transfer from the United States Bureau of Fisheries came 1,135 fishes, mostly welcome bathypelagic specimens. Of especial importance was an excellent series of 1,881 specimens collected for the Museum by Dr. Doris M. Cochran near Rio de Janeiro and in the interior of Minas Geraes, Brazil. A noteworthy lot of 2,401 fishes from Florida was received from C. R. Aschemeier, partly collected for the Museum and partly a gift, and 116 specimens from the Rio Purús and Rio Jurua were purchased from B. A. Krukoff.

Insects.—Accessions of insects for the year totaled 251, a decrease of 12 from the previous year. The total number of specimens also shows a decrease, being 116,717 as against 210,523 last year. Among important accessions may be mentioned the collection of South American Homoptera made by the late Dr. F. W. Goding, which came to us from his estate. It includes about 70 types. Also of importance is a collection of Oriental insects, mostly Coleoptera, made by T. R. Gardner during a 7-year stay in the Orient and largely determined by comparison with the collection at Sapporo, Japan. As Japanese entomologists rely largely on the Sapporo collection for identifications, the value to us of the determined portion of this collection is evident. An exchange of specimens with the British Museum, through G. J. Arrow, resulted in the addition to our series of many paratypes of West Indian Staphylinidae and Scarabaeidae, almost all the species being new to our collection. From the estate of the late Prof. J. E. Guthrie came the collection of his Collembola, containing much material of value. Dr. David C. Graham continued to send collections of insects from Szechwan, China, with a total for the year of more than 33,000. Dr. Hugh M. Smith added about 4,000 specimens to the Siamese collections previously sent. A collection of

3,000 insects, mostly Homoptera, collected in New England, was presented by P. W. Oman, of the United States Bureau of Entomology and Plant Quarantine. About 47,000 miscellaneous insects were retained by the various specialists of the taxonomic staff out of material received by them for identification. Many of these are new to the collection and many new to science. Dr. Doris M. Cochran brought back from her trip to Brazil 3,471 miscellaneous insects, which will prove of interest when mounted and made ready for study.

Marine invertebrates.—The total number of accessions in marine invertebrates is 171, with 18,142 specimens, an increase of 42 accessions and 811 specimens. Ten of these accessions include type material of rare species new to the Museum. The leading accessions are as follows: The Carnegie Institution of Washington presented a large collection of annelids, worms, and mysids taken during the cruise of the S. S. *Carnegie*, including the types of 15 new species of worms described by Dr. A. L. Treadwell. From Dr. Y. Chen, University of Pennsylvania, was received a collection of Chinese earthworms, including paratypes of 18 species recently described by him. Through the cooperation of Dr. M. Minio, director of the Museum of Natural History, Venice, Italy, the National Museum received from Mrs. Angela Nardo Cibele a collection of sponges studied by her father, G. D. Nardo. The Museum of Natural History of the State University of Iowa deposited the extensive and valuable series of invertebrates collected under the auspices of the late Charles C. Nutting during the Bahama expedition, 1893; the Barbados-Antigua expedition, 1918; and the Fiji-New Zealand expedition, 1922. From Dr. G. E. MacGinitie, Corona Del Mar, Calif., the Museum received a large collection of marine invertebrates from the coast of Orange County, Calif., including 7 new species of cumaceans described by Dr. Carl Zimmer. Dr. Norma C. Furtos, Western Reserve University, presented the type and paratypes of a new species of ostracod; Dr. Jean M. Pirlot, Liége, Belgium, cotypes of a new species of amphipod; James E. Lynch, University of Washington, cotypes of a ciliate protozoan; and Steve A. Glassell, Beverly Hills, Calif., paratypes of new species of crabs. Dr. Gordon E. Gates, of Rangoon, Burma, presented a collection of earthworms, part of the material upon which his paper on "New Earthworms from China" is based. The crustaceans collected by Dr. Waldo L. Schmitt while a guest on the cruiser *Velero III* to the Galapagos Islands and the west coast of South America, form an important addition to our collections. From the Scripps Institution of Oceanography, La Jolla, Calif., the Museum received a collection of mysids comprising material upon which Dr. W. M. Tattersall's "Contributions to a Knowledge of the Mysidaceae of California" is based.

Mollusks.—Accessions of mollusks received totaled 125, as against 87 last year, representing 51,038 specimens as compared with 11,265 last year. The most important accessions are as follows: Dr. Adolpho Lutz, Instituto Oswaldo Cruz, through the cooperation of Dr. Doris M. Cochran, 161 specimens (cotypes); Dr. Doris M. Cochran, about 2,000 specimens of land, fresh-water, and marine mollusks from Brazil, collected for the Museum; Dr. Hugh M. Smith, 1,916 specimens from Siam; Dr. H. P. K. Agersborg, Washington, D. C., about 30,000 specimens, chiefly from Europe; the Francis Lea Chamberlain fund, 540 miscellaneous specimens; Academy of Natural Sciences of Philadelphia, paratypes of 18 species, 52 specimens; Dr. D. C. Graham, 2,050 specimens from China; Senckenbergische Naturforschende Gesellschaft, Frankfurt-am-Main, Germany, 7 topotypes; Dr. C. C. Aguayo, Habana, Cuba, 19 specimens of land shells from Cuba (paratypes and topotypes); Henry Van der Schalle, University of Michigan, 1 paratype from Pea River, Ala.; Dr. Leopoldo A. Faustino, Manila, Philippine Islands, 20 specimens of shells, topotypes of Schistosomophora from the Philippines; Dr. F. Felippone, Montevideo, Uruguay, 76 specimens; Dr. Paul Bartsch, 3,925 specimens from Maryland, Virginia, and North Carolina; Drs. Bartsch, G. S. Myers, and Harald Rehder, 200 specimens of marine mollusks from Dismal Swamp and the islands lying off the Virginia Capes.

Corals.—Only two corals were accessioned during the year, but mention must be made of a large collection not yet accessioned received from Dr. Cyril Crossland, Marine Biological Station, Chardaga, Red Sea District, Egypt.

Helminths.—Helminth accessions for the year numbered 14, comprising 53 specimens, 2 of which are genotypes and 8 are types of new species, as follows: From G. L. Brooks, Boston, Mass., 4 specimens of helminths (microscopic slides) comprising 1 new genus and 4 new species; from Prof. Eduardo Caballero y C., Instituto de Biología, Chapultepec, México, D. F., 4 specimens of nematodes (genotypes); from Prof. James E. Lynch, Seattle, Wash., 6 slides of new species of Acanthocephala; from James R. Simon, Superior, Wyo., 2 specimens (type and paratype) of nematodes (*Bulbodacnites scottii*) and also the type specimen of *Mucrocauda agubernaculi.*

Echinoderms.—The most important of the 9 accessions of echinoderms for the year was the 549 lots deposited by the State University of Iowa, 340 of which are from the West Indies and include the material collected by the Bahama expedition of 1893 and the Barbados-Antigua expedition of 1918 under the direction of the late Charles C. Nutting. The curator studied and published his report on the latter collection in 1921.

Plants.—Herbarium accessions comprised 49,411 specimens, as against 31,875 last year. The more important are as follows: 9,706 specimens transferred from the United States Department of Agriculture, 5,953 of which are grasses, including a series of 2,680 specimens of cultivated varieties of wheat. Mrs. E. J. Collins, Bangkok, donated 1,315 specimens from Siam, and Dr. Hugh M. Smith presented 401 plants from the same country; 729 specimens from the mountains of eastern Peru were presented by G. Klug, Iquitos; Otto Degener, New York, donated 525 Hawaiian plants; F. H. Sargent, Washington, D. C., 506 specimens from Puerto Rico; and Delzie Demaree, 578 specimens from Ohio and Arkansas; 567 specimens of lichens and mosses were donated by G. Arsène, Santa Fe, N. Mex.; 1,962 specimens, collected in Hispaniola by E. L. Ekman, were obtained by purchase, as were 469 ferns from British North Borneo, and 967 plants from Brazil and Peru collected by Mrs. Ynes Mexía. Some of the larger accessions received in exchange are as follows: 2,102 specimens, chiefly Chinese, received from the University of California, including several collections by Dr. Joseph F. Rock; 1,572 specimens, mostly from eastern Asia, received from the New York Botanical Garden; 3,194 specimens from India, Sumatra, Mexico, and Central America, from the University of Michigan; 1,158 specimens, mainly from Mexico from the Royal Botanic Gardens, Kew, England; 872 specimens, mostly tropical American, from the Botanische Museum, Berlin-Dahlem, Germany; 1,429 specimens from western and southern Europe, from the Conservatoire et Jardin Botanique, Geneva, Switzerland; 591 specimens from Samoa and the Hawaiian Islands, received from the Bernice P. Bishop Museum, Honolulu; 522 specimens of Brazilian Solanaceae from the Instituto Biologico, São Paulo, Brazil; 865 specimens from China, from Lingnan University, Canton; 540 specimens, mainly Old World, from the Arnold Arboretum; 1,559 miscellaneous specimens from the Gray Herbarium of Harvard University; 474 specimens from Western United States, from J. W. Thompson, Seattle, Wash.; 605 lower cryptogams from the Farlow Herbarium of Harvard University; 1,181 specimens from Canada, from the University of Toronto; 446 specimens from Arizona and northern Mexico, from Stanford University; 296 herbarium specimens of woody plants, chiefly from Africa, from the Imperial Forestry Institute, Oxford University, England; 303 specimens from Formosa and Micronesia, from Kyushu Imperial University, Fukuoka, Japan; and 502 specimens from Mexico and the Western United States, received from Pomona College, Calif.

INSTALLATION AND PRESERVATION OF COLLECTIONS

No essential change was made in the exhibition series during the year, the main effort being to fill minor gaps and to repair and

improve some of the older mounts. Conspicuous among the latter was the large Pacific walrus, mounted more than 40 years ago and first shown at the Chicago World's Fair in 1893 as a part of the Smithsonian Institution exhibit, which had become unsightly through the cracking of the skin. The task of restoration was difficult, but thanks to the patience and skill of the taxidermist, J. S. Warmbath, the renewed mount was successfully installed at the close of the year. The specimen as originally mounted by William Palmer consisted of a heavy framework of wood and iron, the removal of which was a laborious and difficult task. A light but durable manikin was constructed inside the old skin according to the methods of modern taxidermy. This treatment should permanently preserve the specimen in good condition.

The specimen of the aardvark in the African section was likewise restored, and several additional species were mounted and placed on exhibition, including a hog-deer, viscacha, caracal, some rodents and bats in the mammal halls, and an Australian monitor lizard in the reptile hall. A mounted specimen of an unusually large muskellunge, the gift of Edward K. Love, St. Louis, was placed on exhibition. Several additions were made to the District of Columbia faunal exhibit.

In the skin collection of the division of mammals, five of the unit cases received during the year were utilized for the storage of large skins received during the past 2 years from Dr. D. C. Graham in China, and for the rearrangement of the skins of the subfamilies Caprinae and Rupicaprinae. The rearranging and spreading of the Viverridae and Mustelidae were completed during the year, and progress was made on intercalating in the general collection the specimens of the Merriam collection hitherto kept separate. Considerable time was spent in identifying and rearranging the Old World squirrel skins, skulls, and skeletons. A large number of quarter-unit storage cases, originally intended for the collection of smaller skins in the basement, had to be diverted to the attic because of the urgent need for cases for large skulls and skeletons. With the aid of F. E. R. A. workers considerable work on the attic storage was accomplished. Thus, the cases containing skulls of Sirenia, ungulates, Proboscidea, and pinnipeds, as well as the entire collection of skeletons, were listed and card-indexed. On the galleries, the cases containing skulls of carnivores, primates, marsupials, insectivores, edentates, and monotremes, as well as the entire collection of skeletons on the galleries and ground floor, were listed and partly indexed. Considerable work was done on the alcoholic collection, and the addition of three large metal containers will greatly facilitate the storage of large and medium-sized mammals.

Except for crowding in certain groups the entire collection of mammals is now in good condition.

The taxidermists made up 57 skins as study specimens, degreased 64 skins, and skinned 31 fresh specimens. The skeletons of many of these last were roughed out. They also removed 26 sets of leg bones, mostly from skins of large mammals sent from China by Dr. D. C. Graham. The ears of 52 large mammals were softened, turned back, and card-boarded, after having been returned from the tanners, a process that keeps the ears in much better condition. There are now on hand only about 20 skins that need to be tanned on outside contract; but quite a number of small and medium-sized skins will require the services of the taxidermy force. One F. E. R. A. worker was employed in the cleaning of skulls and skeletons, as follows: Large and medium-sized skeletons, 38; large and medium-sized skulls, 174; sets of leg bones, 14. Satisfactory progress was made in preparing accumulated uncleaned skulls and skeletons. Contract work resulted in cleaning 330 small and medium-sized skulls and 163 small and medium-sized skeletons.

Almost all the birds received were distributed in the study series after being identified and labeled. The remaining material was held up for further study. Of collections previously held up as separate units awaiting identification and study, the bulk of the remainder of the large Siamese collections was worked up and distributed in the study series. A large collection of bird bones from Kodiak Island was identified and incorporated in the study series. The identification and modernized labeling of the study series were continued, and several thousand specimens were so treated. These included the bulk of the Siamese collections worked over by the associate curator, the hawks and eagles studied by the curator, and all the Dendrocolaptidae, Furnariidae, and Formicariidae reidentified and rearranged by the curator. Several large lots of bones were similarly named and labeled. Fifteen quarter-unit cases with 200 trays were received and added to the study series. The work of expanding and rearranging the collections involved 41 quarter-unit cases, containing the study series of the hummingbirds, swifts, todies, motmots, jacamars, barbets, honey-guides, hoopoes, kakelaars, larks, woodhewers, ovenbirds, ant-thrushes, manakins, white-eyes, flower-peckers, starlings and some of the crows, woodpeckers, herons, and chatterers. Two F. E. R. A. appointees finished numbering the eggs in the Bent collection, and one of them nearly completed the large task of arranging in cotton-lined boxes the entire Bent collection. The entire skin, skeleton, and egg collection was given two thorough poisonings, and as usual, new lots were poisoned on arrival. Two large storage cabinets were built to store the glassware. The work of the preparators

included skinning, cleaning, and making up 139 birds, mounting 4 birds for the exhibition collection, roughing out 193 skeletons, cleaning 485 others, and blowing 6 eggs.

Owing to the 4-months' absence of the assistant curator, Dr. Doris M. Cochran, in Brazil, cataloging and labeling in the division of reptiles and batrachians fell considerably behind, but the card cataloging of the already registered material was nearly brought up to date. The alcoholic containers were carefully gone over and refilled where needed. Dry preparations were added to the turtle collection as follows: 82 made-up study skins, 118 skulls, and 79 shells.

Work begun last year on the sorting and cataloging of the Philippine *Albatross* fishes was continued by E. D. Reid, aid, with the help of a temporary clerk-typist and F. E. R. A. personnel, resulting in completion of work on one family (the Pomacentridae) of that collection and the segregation of sets of this group due the Philippine Government and the Academy of Natural Sciences of Philadelphia. Bringing the card index of the whole fish collection up to date, a gigantic task, was half completed by the end of the year, and most of the labels on the outsides of the bottles in the study collection which had become illegible were replaced. The alcohol in the type bottles was tested and brought up to 75 percent where necessary, and the refilling of all bottles, begun last year, was finished. The fishes of the United States Exploring expedition, which had been kept segregated, and the collection of the *Tomás Barrera* expedition, were both installed in the general stacks, and several thousand bottles of old, uncataloged material were overhauled, cataloged, and installed. The installation of this material yielded much necessary shelf space in the crowded stacks, for curatorial work on the Philippine fishes and new accessions. Altogether, 21,974 specimens were cataloged during the year, an all-time record in the history of the division.

The division of insects, in spite of some slight gain in space due to transfer of the nonprofessional staff of the Bureau of Entomology and Plant Quarantine, is still handicapped by overcrowding. Twice as much space as now occupied would barely suffice for the proper housing of the collections without providing room for future additions. The progress made in installation and preservation may be recorded as follows: H. S. Barber completed rearrangement of a number of genera, mostly in connection with identification studies. Much work was done on the Elateridae, especially larvae, brought together by J. A. Hyslop, of the Bureau of Entomology and Plant Quarantine, which will eventually be turned over to the National Museum. In the groups of Coleoptera cared for by L. L. Buchanan, definite progress was made in the transfer of the North American beetles of the family Carabidae from schmitt boxes to museum trays and drawers. He was assisted by preparators on the staff of the

Bureau of Entomology and Plant Quarantine and by F. E. R. A. workers.

The developmental work for the Museum collections of Lepidoptera was continued with intensity. In the North American Macrolepidoptera in charge of Foster H. Benjamin a considerable amount of material received with the Barnes collection was labeled and so made available for distribution in the collections. Two small groups of noctuid moths were rearranged, and perhaps 3,000 specimens received from various sources and mostly of critical importance to the collections were incorporated. August Busck did further work on rearrangement and expansion of the Microlepidoptera, and Carl Heinrich rearranged all the New World Megalopygidae in line with a recently published revision in Seitz's "Macrolepidoptera of the World." Dr. W. Schaus devoted a large part of his time to the development and expansion of a number of families of exotic Macrolepidoptera. The collections of Diptera, except Culicidae, were moved early in the year from room 430 to rooms 383 and 390. C. T. Green spent much time in rearranging all the Diptera collection that was not turned over to Dr. Alan Stone, and now has the material that has been transferred to museum drawers in one continuous sequence, following standard systems of classification. At the time of the transfer of the Diptera, all the nemocerous Diptera, the Tabanidae, and the Pupipara were assigned to Dr. Stone. He made a preliminary rearrangement of all these families to make the material available for reference purposes, but much curatorial work needs to be done on these groups.

The moving of various employees of the Bureau of Entomology and Plant Quarantine permitted a number of readjustments in working space and in the arrangement of the collections of Hymenoptera. R. A. Cushman undertook minor expansion of the collections as a result of addition of specimens from time to time. The joint-worms of the genus *Hermolita* were completely rearranged by A. B. Gahan in line with a manuscript revision of the group by Dr. W. J. Phillips, and the manuscript types of 20 new species belonging to the genus were incorporated in the collection. Another genus of chalcids, *Perilampus*, was rearranged also with resulting incorporation of about 20 additional new manuscript types. Other genera that were rearranged and expanded include *Brachymeria* (North America), *Bruchophagus*, *Psyllaephagus*, *Arachnophaga*, *Zaischnopsis*, and *Lelaps*. C. F. W. Muesebeck continued expansion and rearrangement of the Braconidae, chiefly through the addition of newly received material, and materially expanded the Serphoidea, a group previously in crowded and unsatisfactory condition. The cases and working space in the room containing the bulk of the aculeate Hymenoptera were largely rearranged during the year. The

specimens belonging to the family Psammocharidae were worked over, and much previously unidentified material was incorporated in the regular series. Specimens of *Trypoxylon* occurring in the Americas were rearranged and identified in accordance with a recently published paper by O. W. Richards, who examined much material from the National Museum, and as a result Miss Grace Sandhouse was able to add a number of types to the Museum collections. The American bees of certain subgenera of the genus *Megachile* were rearranged in accordance with a paper published by Theodore B. Mitchell. Miss Sandhouse also checked and identified all North American specimens of the genus *Chalybion*, made progress in the rearrangement and identification of the Oriental and Australian Scoliidae, and identified undetermined North American specimens of *Scolia*. Specimens of *Bombus* returned by Dr. T. H. Frison, of *Eucerceris* returned by Prof. H. A. Scullen, and of Australian Psammocharidae returned by Dr. P. P. Babiy were incorporated into the collections. Types of Philippine Mutillidae were labeled and arranged in the collection. Manuscript types of *Neotiphia* and *Tiphia*, received from Dr. H. W. Allen, were entered and added to the collection. Under the direction of Dr. H. E. Ewing the mites of the suborder Mesostigmata were rearranged and expanded so that they now occupy two standard museum slide cabinets. In addition currently received mite material was added to the collections. The following groups of Heteroptera were worked over by H. G. Barber: Neotropical Coreidae, Aradidae, Neididae, and Nearctic and Neotropical Notonectidae. Dr. P. W. Mason rearranged the aphid and aleyrodid slide collections. Work on the South American Cicadellidae was continued by P. W. Oman and the Museum's specimens of this family are now almost completely arranged. Such European material as is present in the Museum collections was trayed and arranged in preliminary fashion. A considerable number of additions to the collections were made from material received for identification.

Owing to the increased demands on the taxonomic staff for determinations, work on the transferring of material from original containers to the standard museum cases was slow. Most of the C. F. Baker collection under the direct charge of the curator was transferred; about half of that contained in the H. F. Wickham collection is also now incorporated. Mrs. Annie C. Willis in addition to her regular duties has aided the curator greatly in carrying on a card index of the generic names proposed in the Scarabaeidae with notations indicating the species originally included.

In the division of marine invertebrates the removal of the helminth collections released some much-needed shelf space. Incoming collections for the greater part were sorted for study, and large col-

lections received from the University of Iowa were rebottled where necessary. Dr. Bassler, who has devoted a great deal of his time to the bryozoan collections, reports that all the Bryozoa resulting from the many stations of the Johnson-Smithsonian Deep-Sea expedition have been assorted, classified, cataloged, and placed in the study series. A rich collection from Port Antonio, Jamaica, was similarly treated. The entire collection of recent Bryozoa was rearranged in accordance with the classification recently published by Dr. Bassler.

In the division of mollusks, owing to the assistance of F. E. R. A. workers, great strides were made in catching up with arrearages in cataloging. The work necessitated certain redistribution and rearrangement of material in the collections. Cataloging of the pamphlet literature in the division also progressed.

The entire collection of helminths was overhauled by the staff of the Zoological Division of the United States Bureau of Animal Industry.

In the division of echinoderms, through the part-time services of two F. E. R. A. assistants, the work of cataloging and systematizing the collection made great progress, and arrears of many years' standing were overcome. Some relocation and rearrangement of the alcoholic collections in the stacks also were completed.

The improvement of the herbarium last year through temporary C. W. A. help was continued since November by the part-time employment of seven F. E. R. A. workers. This work was exceedingly varied and included the typing of original descriptions of species and genera, the clipping of printed original descriptions and illustrations, the mounting of a large number of these and of photographs on sheets for incorporation in the herbarium, the recording of specimens, and similar tasks. Nearly 50,000 mounted specimens, chiefly from the United States and tropical America, were incorporated in the herbarium. This work involved the rearrangement of a great deal of herbarium material and the preparation of thousands of new covers. About 7,000 of the 25,111 mounted specimens that have been stamped and recorded have not yet been distributed into the herbarium, and there are besides about 6,000 mounted specimens that await stamping and recording preparatory to incorporation. The number of plants mounted (wholly by adhesive straps) during the year is 23,161, of which 6,000 specimens were mounted by our own force and the remainder under outside contract. There are about 15,000 specimens on hand ready to mount.

The G. C. Lloyd mycological collections have recently been moved into new and larger quarters, so that they are more readily available to resident workers as well as to visiting mycologists. A critical

résumé of Mr. Lloyd's new fungus species and fungus names, totaling 1,132 new species and 392 new combinations, has been finished and awaits publication by the Lloyd Library of Cincinnati. This manuscript includes for each species considered the original Lloyd citation, reference to additional notes by Lloyd or other mycologists and listing of the type and other specimens to be found in the Lloyd collection, together with all pertinent data.

As to the other groups of lower cryptogams, E. C. Leonard continued supervision of the moss and hepatic collections and gave a great deal of time to the algal herbarium. The segregation of type specimens of American phanerogams was continued by E. P. Killip and E. H. Walker, 19,901 types having now been cataloged and segregated in heavy individual covers. During the year 730 specimens were added. The importance of bringing together this material as a separate unit has been amply demonstrated. Not only are the specimens protected by being removed from general handling, but they are immediately available for use when needed. The work of incorporating in the general herbarium sheets bearing cross-reference labels to specimens removed to the type herbarium was nearly completed.

RESEARCH BY MEMBERS OF THE STAFF

The curator of mammals, Gerrit S. Miller, Jr., notwithstanding a protracted absence due to illness and field work, made progress in identifying the important series of mammals collected in Siam under the direction of Dr. H. M. Smith during the past 12 years. The Smith material is of particular importance to the Museum because it represents the fauna of the region lying immediately to the east of the country worked in during the early years of this century by Dr. W. L. Abbott. The assistant curator, Dr. Remington Kellogg, continued his investigation of the taxonomy and nomenclature of the pinnipeds and his researches on the osteology and soft anatomy of the recent cetaceans and their ancestors. His time was largely occupied by the direct superintending of the relief workers who have been cataloging and arranging the pamphlet collection in the division, which probably contains not less than 12,000 pamphlets. Much fragmentary osteological material for identification continues to be sent to the division by investigators of prehistoric Indian sites. About 1,600 specimens (36 lots) of this kind were reported on during the year. In this work the curator and assistant curator were assisted by H. H. Shamel, who made the preliminary sortings of the fragments. A. J. Poole, aid, continued work, in collaboration with Mrs. Viola S. Snyder, of the Biological Survey, of bringing the catalog of type specimens of mammals up to date. This work is now practically finished.

The curator of birds, Dr. Herbert Friedmann, continued his work on the Falconiformes in the series on "The Birds of North and Middle America" and completed several hundred pages of manuscript. In the course of this he had occasion to revise a number of forms, and these incidental studies resulted in four papers describing new forms. He finished a comprehensive report on the birds of Kodiak Island, as well as a smaller paper on bird bones from there collected by Dr. A. Hrdlička. He also wrote a summary review of bird societies and published a paper on instincts and emotions of birds. His vitamin D studies were also completed. The associate curator, J. H. Riley, continued his studies of the large collections of Siamese birds sent in by Dr. H. M. Smith, and published three papers on them. Dr. Alexander Wetmore published several papers on fossil birds and on southwestern birds.

The curator of reptiles and batrachians, Dr. L. Stejneger, continued work on the Testudinata of North and Middle America. The assistant curator, Dr. Doris M. Cochran, in addition to her collecting activities in Brazil, spent much time in studying native species of frogs, including intensive research into their natural history, breeding habits, and related features. The monograph of the amphibians and reptiles of Hispaniola was practically completed when the study of two new collections from the island necessitated many modifications of the text.

Dr. G. S. Myers, assistant curator of fishes, continued study of some of the more difficult groups of the Johnson-Smithsonian deep-sea collection. Some time was put in on the Ternetz Orinoco fishes and progress made with studies of Virginia fishes. Besides this, he made studies of the Grammicolepidae and Phallostethidae and on the old Hornaday collection of Bornean fishes. Miscellaneous lots from South America, Asia, and Africa were worked up, resulting in the preparation of several short papers, three of which were published. A preliminary account of the cyprinodonts of Hispaniola was completed. Work on a manual of instructions for collecting and preserving fishes was nearly finished. E. D. Reid, aid, worked on old and new collections from the Galapagos Islands and Ecuador and completed one paper.

Time available for research to the curator of insects, Dr. E. A. Chapin, was spent on the coleopterous family Scarabaeidae. He completed a revision of the melolonthine genus *Chlaenobia*, a close relative of the common May beetles, a paper describing new Cuban pleurostict scarabaeids, and a preliminary paper dealing with important novelties coming from Puerto Rico. Dr. A. G. Böving did some preliminary research work on morphological characters useful

for classification in the beetle larvae of the family Nitidulidae and also worked on keys and illustrations for a generic outline of the larvae of the families Anobiidae and Scarabaeidae. L. L. Buchanan completed investigations on the classification of the species of the genus *Calendra* occurring in the Greater Antilles, of the species of *Apion* in the same area, of the North American species of *Lepidophorus*, of *Panscopus*, and of the subfamily Trachodinae. W. S. Fisher prepared descriptions of a considerable number of new species of beetles from various parts of the world.

In the section of Lepidoptera, Foster H. Benjamin investigated the classification of certain groups of the Noctuidae. Also, at the desire of the Bureau of Entomology and Plant Quarantine, he took up further revisional studies in the genus *Anastrepha* of the family Trypetidae and made marked progress. August Busck continued his studies on the family Tortricidae and considerably enlarged his manuscript revision of the family. Carl Heinrich continued his work looking toward the revision of the Phycitinae. C. T. Greene continued his research in Diptera and made some progress in the study of the immature stages of the Agromyzidae. Dr. Alan Stone made definite progress with his work on a revision of the Nearctic Tabanidae.

In the section of Hymenoptera, R. A. Cushman undertook a critical revisional study of the genera *Ophion*, *Exetastes*, *Enicospilus*, and *Eremotylus* and assembled, in part through the borrowing of specimens, much material in these genera. A. B. Gahan continued revisional studies on a number of genera of Hymenoptera, including *Brachymeria*, *Arachnophaga*, *Bruchophagus*, *Zaischnopsis*, *Lelaps*, and *Psyllaephagus*. The revision of *Aphytis* mentioned last year is still incomplete. C. F. W. Muesebeck continued his revisional study on the braconid genera *Orgilus* and *Coeloides* and on the Rhogadinae. Miss Grace Sandhouse undertook taxonomic studies in the bee subfamily Osmiinae and continued work on the classification of the Nearctic bees of the genus *Augochlora* and on many problems in connection with identification work. In the section of orthopteroids and neuropteroids, A. N. Caudell worked on a world bibliography of the Orthoptera and on an index to new genera and species, new synonymy, and important biological matter. He continued work looking toward the preparation of a handbook on the classification of the Orthoptera of the District of Columbia and adjacent areas.

Dr. H. E. Ewing spent much time on a revisional study of the North American mites of the subfamily Tarsoneminae. In Hemiptera, H. G. Barber undertook studies on the classification of the Neotropical Coreidae, Aradidae, and Neididae and on the American Notonectidae. He began a serious study of the complex represented

by the genus *Elissus* as it occurs in this country and continued a regional study of the Hemiptera of the West Indies with particular reference to Puerto Rico. Dr. P. W. Mason reports a continuation of his studies on the Macrosiphina. P. W. Oman studied the American species of the leafhopper genus *Empoasca* and developed a generic synopsis of the American Bythoscopinae and a generic revision of the South American Jassinae.

In the division of marine invertebrates Dr. Mary J. Rathbun submitted a manuscript on the "Oxystomatous and Allied Crabs of America" to the Museum for publication. She continued her studies on fossil Crustacea as noted in the report of the department of geology. In addition she found time to make a notable beginning on the identification of the large number of unnamed American Brachyura received since her several monographic bulletins on American crabs were issued. To date she has covered most of the American grapsoids and a part of the spider crabs and in doing so has determined over 2,000 specimens. Three papers completed by the curator, Dr. Waldo L. Schmitt, were published during the year. A number of routine identifications of macruran and anomuran Crustacea were accomplished, and some time was given to the study of the Johnson-Smithsonian deep-sea expedition Crustacea. Clarence R. Shoemaker, assistant curator, devoted the greater part of his time to a report upon the extensive amphipod collections made by Dr. William Beebe in the deeper waters off Bermuda. Three papers by Mr. Shoemaker were published during the year. J. O. Maloney, aid, as usual gave a considerable part of his time to determining the isopods received with plant importations for the Bureau of Entomology and Plant Quarantine, in all some 154 individual specimens. His studies on isopods collected by Capt. Robert A. Bartlett are about complete, while considerable progress was made on the Hancock isopod material of the last three Pacific cruises. Dr. J. A. Cushman, collaborator in Foraminifera, completed the manuscript of the third part of his bulletin on Tropical Pacific Foraminifera and made a beginning on a monograph of the Foraminifera of the world. Dr. C. B. Wilson has been finishing up the miscellaneous copepod material that was sent him for determination, in addition to completing five important papers.

The curator of mollusks, Dr. Paul Bartsch, continued his studies upon the East African Turritidae and more recently upon the preparation of a manual on the Hawaiian marine shells. In this he was assisted by Dr. H. A. Rehder, assistant curator, whose time otherwise was largely devoted to miscellaneous determination of material sent in by Government and other agencies, as well as private individuals. In addition, Dr. Rehder completed research upon the North

American Succineas. Dr. J. P. E. Morrison, aid, in addition to his preparator's work, overhauled a portion of the collection of Pupillidae and Zonitidae.

Austin H. Clark, curator of echinoderms, continued work on parts 4 and 5 of the comatulid volume of his "Monograph of Existing Crinoids", devoting all the time possible to this work in order that the bulletin may be completed in the near future. Work also was continued on the echinoderms collected by the Johnson-Smithsonian deep-sea expedition. The collection of crinoids assembled by the Dutch steamer *Willebrord Snellius*, a large collection of exceptional interest from the Dutch East Indies, was determined.

In the division of plants Dr. F. V. Coville, curator, continued his studies of the flora of the Death Valley region, Calif. Dr. W. R. Maxon, associate curator, devoted some time to the study of Jamaican and other tropical American ferns and described a remarkable new genus, *Pleuroderris*, of suspected hybrid origin. E. P. Killip, associate curator, continued his studies of the flora of Colombia, especially the families Cyperaceae and Fabaceae, and of the Andean species of *Bomarea*, a genus of decided horticultural value. E. C. Leonard, assistant curator, studied several tropical American genera of Acanthaceae in connection with monographic work upon this family. C. V. Morton, aid, continued his studies of the tropical American species of Solanaceae, Gesneriaceae, and Malphigiaceae, particularly the last two families, and is engaged jointly with Mr. Killip in a study of the Mexican and Central American species of *Smilax*. E. H. Walker, aid, continued his studies of Chinese Myrsinaceae and the final preparation of manuscript of the botanical bibliography of China and adjacent parts of eastern Asia, the latter a project upon which he has for several years been engaged jointly with Dr. E. D. Merrill, director of the New York Botanical Garden. Dr. A. S. Hitchcock, custodian of grasses, published during the year his "Manual of the Grasses of the United States", a copiously illustrated work of more than a thousand pages summarizing his studies of many years upon this important group.

DISTRIBUTION AND EXCHANGE OF SPECIMENS

Duplicate specimens distributed to museums, colleges, high schools, and similar institutions aggregated 1,298 specimens; and 15,917 specimens were sent out in exchange, of which 1,550 were zoological. The 14,367 plants distributed went to 92 institutions and correspondents, of which 44 were in the United States and 48 in 12 countries abroad.

NUMBER OF SPECIMENS UNDER DEPARTMENT

The number of specimens as given below is based, as in former years, on the numbers as estimated for the previous fiscal year with the addition of the number of specimens accessioned during the present year after the deduction of specimens sent out during the same period. The figures of the early estimates were only approximate and in some instances the deductions for losses due to deterioration of material may have been underestimated. On the other hand, some earlier estimates of unregistered material may also have been underestimated. Then again, several collections, as the corals, have not been included, nor does the number of plants given below include the lower cryptogams and duplicates, material of which on hand is chiefly from China and South America. In several of the divisions, lots consisting of minute organisms are frequently counted as single specimens though they may contain hundreds or even thousands of individuals, the enumeration of which would serve no useful purpose.

Mammals		223,217
Birds:		
Skins	258,791	
Alcoholics	9,672	
Skeletons	14,176	
Eggs	89,773	
		372,412
Reptiles and amphibians		107,541
Fishes		754,732
Insects		4,461,914
Marine invertebrates		933,075
Mollusks		2,557,901
Helminths		144,413
Echinoderms		162,677
Plants		1,612,860
Total		11,330,742

DEPARTMENT OF GEOLOGY

(R. S. Bassler, *Head Curator*)

All divisions of the department of geology made substantial progress during the year, first, in the acquisition of excellent study and exhibition material, by purchase through the several endowment funds at our disposal, by collections by the staff, and by valuable gifts; and, second, in a considerable advancement of the routine work of care and preservation of the collections, particularly through assistance furnished by the F. E. R. A.

Notable among the acquisitions are many valuable minerals and gems added to the Roebling, Canfield, and Isaac Lea collections; an unusual number of interesting meteorites representing new falls; the Hurlburt collection of Paleozoic invertebrate fossils from classic localities now exhausted; and collections by members of the staff in every division covering all fields of geology.

The death on February 7, 1935, of Dr. David White, associate curator of the section of paleobotany since 1903, caused the loss not only of one of America's most prominent paleobotanists, but also of a lifelong friend of the Museum, under whose care the fossil plant collections were built up to their present high rank.

ACCESSIONS

The accessions number 269, with an estimated total of 28,528 specimens, slightly less than for last year. By divisions, these are as follows: Mineralogy and petrology, 136 accessions (1,446 specimens); geology, systematic and applied, 20 (351 specimens); stratigraphic paleontology, 88 (26,425 specimens); vertebrate paleontology, 25 (306 specimens). In all divisions the scientific value is of the highest standard.

There were 23 accessions to the Canfield collection, resulting in an increase of 174 mineral specimens. Of special interest here are a specimen of crystallized gold and altaite from California; a rich mass of gold in gray quartz from Canada; a hiddenite crystal of 48 carats from North Carolina; a fine group of crystallized stannite, wolframite, and cassiterite from Bolivia; two specimens of prismatic dioptase, a silicate of copper, from French Congo; topaz crystals from Colorado and Southwest Africa; a large mass of botryoidal smithsonite with cerussite from Southwest Africa; a series of fine leadhillite specimens, a rare sulfo-carbonate of lead, from Bisbee, Ariz.

Through the interest of Dr. Harvey P. Barret, of Charlotte, N. C., the Canfield collection acquired a rich mass of North Carolina uraninite, showing crystals and weighing over 5 pounds.

The six accessions, totaling 393 specimens, credited to the Roebling fund comprise two especially important ones, namely, a collection of minerals from pegmatitic pockets in the granite area of Striegau, Germany, and the material resulting from Dr. W. F. Foshag's field work in Mexico under the auspices of the fund. The Striegau collection is rich in orthoclase, fluorite, quartz, and many other minerals from this classic region. Most notable in the Mexican material are huge single and twinned crystals of pyrrhotite, large vesuvianite crystals, vanadinite, silver, and rare mercury minerals. Other specimens worthy of special notice added to the Roebling collection are a diamond crystal in blue ground from the Dutoitspan mine, South Africa; a diamond from Idaho; two small diamonds from the Caroni River, Venezuela, a part of the original discovery lot; and two groups of unusually fine crystals of apatite from Germany.

As in past years, many of the Museum's friends have been active in its behalf, with the result that a number of valuable and interesting minerals were presented or acquired through their individual efforts. Chauncey Thornburg and Tom Stafford, Santa Eulalia, Mexico, presented, respectively, a unique group of large pyrrhotite crystals on the black sulphide of zinc marmatite and a large, sharp, hexagonal crystal of pyrrhotite, both from Santa Eulalia. Romero Robles, Huitzuco, Mexico, added a large and rich mass of the rare mineral livingstonite from Huitzuco, and a number of other rare mercury minerals from Huahuaxtla, Mexico. Dr. Frederico Seyffert, Cusihuiriachic, Mexico, donated a fine specimen of native silver from Batopilas, Mexico; and Roy Matheson, Santa Eulalia, a rich sample of silver from Sabinal, Mexico. Graham C. Dugas presented a specimen of interesting wire gold from the Dugas Gold Mines, Georgia; the Idaho-Maryland Consolidated Mines, Grass Valley, Calif., rich specimens of gold in quartz from their mines; and Mrs. Charles D. Walcott, gold in limonitic jasper from Bullfrog, Nev.

Horace Benson Hall, Wardner, Idaho, and W. McM. Huff, Kellogg, Idaho, added four rich masses of the rare lead oxide, plattnerite, from Idaho; Dr. Harvey P. Barret, Charlotte, N. C., continued his interest in the collections, adding a fine exhibition slab of blue hyalite, a rich mass of uraninite, and several torbernite specimens from his State; William P. Crawford again made important donations, comprising a series of hetearolite and plumbiferous hetearolite specimens from Bisbee, Ariz. W. E. Lockhart also presented additional material including a new and unusual occurrence of dickite.

The following gifts also deserve special mention: George Hare and C. A. Noren, Fresno, Calif., sent a suite of excellent muscovite pseudomorphs after andalusite from California; Charles Hardy added a large mass of the rare calcium antimonate, romeite, from

China; Bradley Johnson, Penland, N. C., specimens of allanite; and Roby Buchanan, Hawk, N. C., a specimen of the uranium oxide gummite from that State.

Species of minerals new to the collections include ahlfeldite, blockite, kolbeckine, and selenolite from Bolivia; aglaurite from Czechoslovakia; igalikite (part of type), metajarlite, and naujakasite (part of type) from Greenland; johannsenite from Mexico; repossite from Italy; and sahlinite from Sweden. Dr. Eugene Poitevin presented a specimen of his new mineral ashtonite.

For the Isaac Lea gem collection, through the Chamberlain fund, were secured a pale blue aquamarine from Maine (60 carats); a chrysoberyl (32 carats), a golden brown sapphire (34 carats), and a green zircon (11 carats) from Ceylon; a rhodolite garnet (6½ carats), and a demantoid garnet (4 carats). A large cut emerald green fluorite (117 carats) was acquired by exchange.

The increase in the meteorite collection was especially notable, 25 new falls being added. The most important accession is a complete individual of the Paragould aerolite weighing about 75 pounds, a gift of Stuart H. Perry, Adrian, Mich. This is one of the finest and most interesting meteoric stones that has come to the Museum in many years. Another unusual aerolite is the Moore County, N. C., eucrite, a rare type of meteorite. Other new falls added by purchase through the Roebling fund are as follows: Bruno, Saskatchewan, 17 grams; Campbellsville, Ky., 240 grams; Central Wyoming, 5,300 grams; Gruver, Tex., 1,030 grams; Karoonda, Australia, 23 grams; Kearney, Nebr., 1,007 grams; Lake Labyrinth, Australia, 995 grams; Tryon, Nebr., 2,200 grams; Ulysses, Kans., 334 grams; Weldna, Colo., 1,072 grams. Complete individuals obtained from other falls are Harrisonville, Mo., 1,145 grams; Santa Fe, N. Mex., 290 grams; Tulia, Tex., 3,850 grams.

An interesting addition to the collections especially for exhibition purposes is a photograph of the meteoritic clouds of the Pasamonte fall, photographed and presented by A. R. Allen, Trinidad, Colo.

The total number of distinct meteoric falls now represented in the collection is 592.

To the Henry S. Washington collection were added, from his estate, about 500 additional rock specimens, upon which much of Dr. Washington's later work was based. Dr. E. Mark Houghton and J. H. Dawson, Milford, Mich., donated a large specimen of colorful jasper conglomerate from the State, added to the exhibit of sedimentary types. Frank E. Saunders, Leesburg, Va., presented an unusual form of weathering in diabase from Leesburg, and B. Frank Emery, Detroit, Mich., added an unusual limestone slab showing ice crystal markings so regular that they resemble hieroglyphics.

Accessions of ores have been of increased importance. Congressman Joe H. Eagle presented a specimen of cap-rock showing the contact of anhydrite and rock salt in a salt mine at Hockley, Tex. Kramat Pulai, Ltd., added a collection of rich tungsten ores and associated rocks from their mines in Federated Malay States. The Nevada-Massachusetts Mining Co. donated two large specimens of high-grade tungsten ores from their properties in Nevada. Carlos Leyva, Oaxaca, Mexico, presented a slab from a newly discovered titanium deposit in Oaxaca. Aubrey Horn, Nigeria, added a series of African Gold Coast manganese ores. Percy Train, Rochester, Nev., presented a slab of rich silver ore from Nevada, and Hugo Miller, Nogales, Ariz., presented two rich molybdenum ores from Sonora, Mexico. Most of these are of exhibition character.

As a transfer from the United States Geological Survey was received a collection of described material illustrating the petrology of the Louisiana and Texas cap-rocks.

The curator, Dr. W. F. Foshag, as a part of his field work last summer in Mexico, collected suites to illustrate the ore occurrence in the various districts visited. These include silver and gold deposits in Cerro Los Muertos, Cusihuirachic, Maguarichic, Namiquipa, Pachuca, Real Del Monte, Sabinal, and Tasco, and mercury ores in Huitzuco and Huahuaxtla.

The outstanding gift of the year in invertebrate paleontology is the Hurlburt collection of lower Paleozoic invertebrate fossils, especially rich in rare New York Ordovician trilobites, crinoids, cystids, and mollusks. This collection was presented by Edward N. Hurlburt, Rochester, N. Y., as a memorial to his father who assembled it in the early days of American paleontology when the classic localities of New York and Canada were at their best. The elder Mr. Hurlburt was a distant relative of Dr. Charles D. Walcott and encouraged his start in paleontological field work many years ago.

Gifts of type specimens of fossil invertebrates include metatypes of two new genera of Eocene Foraminifera from Mrs. Helen Plummer, Austin, Tex.; similar types of graptolites from the Richmond limestone of Akpatok Island, Ungava Bay, from Ian Cox, Cambridge University, England; casts of Michigan Devonian brachiopod types, University of Michigan; paratypes of a brachiopod from the Ottosee formation, eastern Tennessee, from Prof. Charles Schuchert; Silurian Ostracoda from Pennsylvania from Dr. Frank M. Swartz; a Silurian cephalopod from Prof. A. C. Swinnerton, Antioch College, Ohio; casts of European Paleozoic Edrioasteroidea from the British Museum (Natural History); casts of Bohemian trilobites from the Narodni Museum, Prague; casts of types from Canada and Chosen, described by T. Kobayashi, Imperial University, Tokyo.

Dr. Mary J. Rathbun's activities again added several gifts to our collection of fossil crabs.

Nine gifts furnished fossils from countries beyond North America, collections of especial importance to us for comparative studies. Among them were 1,600 Cretaceous and Tertiary invertebrate fossils from France, Tunis, and India presented by Paul Bede, Sfax, Tunis, through the efforts of Dr. Julia A. Gardner; an interesting collection of Jurassic fossils from Chile, by Mark C. Bandy, Redfield, Iowa; corals and other Tertiary fossils from South Australia, by Leo Stach, Melbourne; invertebrates and fishes from England, by Miss M. L. Johnson, Kew; and Mesozoic and Cenozoic corals, by the British Museum. Pleistocene shells from Alabama presented by Miss Lucille Mapes, Cambridge, Ohio; Devonian invertebrates from Pennsylvania, by Dr. Roland W. Brown, U. S. Geological Survey; Carboniferous brachiopods from the Mississippi Valley, from L. M. Cline, University of Iowa; and Ordovician brachiopods from Gaspé, Quebec, by Dr. Cecil Kindle were important gifts from North American strata.

Five of the gifts were of purchases by the Frank Springer fund. More material has been added to this collection in the past two years than for more than a decade. Rare complete crinoids from the Coal Measures of Oklahoma, and Devonian crinoids and blastoids from New York and Ontario, were thus received.

Dr. G. A. Cooper's efforts again brought important study material to the brachiopod collections through exchanges, especially of Ordovician types from Quebec exchanged with the Geological Survey of Canada; Cretaceous forms from Tunis from the Jardin Zoologique, Sfax; Tully limestone of New York, from Dr. Bradford Willard, Harrisburg, Pa.; Pliocene of England, from the Sedgwick Museum; Triassic of New Zealand, from the Geological Survey of New Zealand; and Ordovician of Estonia, from Dr. A. Öpik, Tartu. The New Zealand Triassic material is of especial interest because the contained generic types also occur in the Triassic of California.

Prof. L. R. Laudon presented a good series of the Mississippian crinoids described by him from Gilmore, Iowa, and Dr. M. A. Stainbrook, Texas Technological College, cystids from the same State, while the University of Montana added the types of two Mississippian crinoid species from Montana on the ground that such rare specimens should be preserved in the national collections.

Transfers from the United States Geological Survey embraced a wide range of fossils from collections of Miocene and Pliocene Foraminifera from the Kettleman Hills oil wells of California to gigantic Ordovician cephalopods from the Rocky Mountains, the latter forming the basis of a monograph by Dr. A. F. Foerste.

Dr. Cooper collected for the Museum about 30,000 Devonian and other Paleozoic fossils during his field work in Michigan, Ontario, and New York. In company with R. D. Mesler he later in the year collected about 10,000 fossils in Virginia, Tennessee, and Arkansas. Drs. Ulrich, Cooper, and others secured about 5,000 specimens in the vicinity of Phillipsburg, Canada.

The curator made a collection in southwestern Virginia and another small one at Swatara Gap, Pa., the latter including a good starfish.

The materials resulting from the field expedition to Idaho under Dr. C. L. Gazin are of first importance in vertebrate paleontology, especially benefiting the mammalian collections. As in previous work in this formation, fossil remains of the extinct horse *Plesippus shoshonensis* formed the bulk of the collection, which nearly equaled the combined previous collections. There are 65 skulls and a number of partially articulated skeletons, besides a vast number of bones of all parts of the skeleton. Other specimens deserving special mention were three peccary skeletons of the genus *Platygonus*, portions of two skulls and other bones of a new genus of antelope, a mastodon skull, a number of skulls and other skeletal parts of the beaver and otter, an assortment of bird bones, and many representative parts of the microfauna.

Through exchange with the Carnegie Museum of Pittsburgh, an excellent skeleton of the sauropod dinosaur *Camarasaurus* was secured. It represents an animal 35 or more feet in length, lacking only a section of the tail, and is the second most perfect skeleton so far known. In its articulated state it should, when prepared, form a most striking addition to the exhibition series where previously the genus was inadequately represented.

Five model restorations illustrating the evolution and development of the horse in North America were presented by Mrs. J. W. Gidley. This gift has a special significance since these were modeled by the late Dr. J. W. Gidley, for many years connected with the division.

The type specimen of *Palaeophis virginianus*, a large fossil snake from the Eocene deposits of Virginia, was presented by Dr. W. G. Lynn; two fossil cetacean skulls from the Miocene of California were likewise added to the collections by T. V. Little and C. A. Pratt; and a very fine skull and lower jaws of the giant piglike animal *Arcthiaeotherium*, were the gift of Edward S. Tyler.

INSTALLATION AND PRESERVATION OF THE COLLECTIONS

Relabeling in a more comprehensive manner the entire systematic series of minerals was the year's outstanding piece of exhibition

work in the division of mineralogy and petrology. Approximately 3,000 new labels were prepared, with such data noted especially as the chemical composition of the mineral species, striking or distinguishing features, and the associated minerals. In the hall of physical geology, the exhibit of concretions and similar forms was revised and relabeled where necessary.

The study collection of meteorites was expanded and rearranged preparatory to a reinstallation of the entire meteorite exhibit. Progress was made on cleaning and revising the study series of minerals and in condensing and reallocating certain of the study and duplicate collections.

Studies by the head curatnr incidental to the preparation of a descriptive paper on fossil sponges gave opportunity for a rearrangement and expansion of this part of the biologic series, bringing the classification and labeling up to date. Similarly, the Paleozoic algae were assembled and classified so that this part of the study series, comprising many diverse forms hitherto widely scattered is now available for comparative studies. A special effort was made to reduce the large quantity of unstudied post-Paleozoic as well as recent Bryozoa by classifying, separating out the duplicates, and adding the study material to the biologic series. Several thousand slides of Mesozoic and Cenozoic Bryozoa were mounted during this process, and in the case of the recent forms the rather large collections from the Johnson-Smithsonian deep-sea explorations, as well as some smaller collections from the Mediterranean and elsewhere, were classified.

The conodont collection of unstudied material, comprising some 60 standard drawers, was prepared and reduced to smaller bulk preliminary to future study. The echinoderms and bryozoans of the Hurlburt collection were assembled, classified, and placed in the biologic series. Work was commenced on a large collection of Silurian fossils from Siberia, mainly corals, and more than 100 thin sections of the latter were prepared and studied.

Following this, the exhibits in invertebrate paleontology and paleobotany were given their annual cleaning and relabeling where necessary. A dozen or more paleobotanical specimens prepared for exhibition during the year were added to that series. The crowded condition of both of these exhibits prohibits expansion, and efforts are directed to replacing the poorer material with better specimens and bringing labels up to date.

With the completion of the cataloging of the study series of crinoids of the Springer collection, as noted in last year's report, Miss Margaret Moodey undertook the same work on the exhibition series, completing this task, rewriting labels, and removing type specimens to the study series. The study series of cystids, blastoids, and echinoids were then checked with the literature and cataloged.

With the assistance of a photographer assigned to the department by the F. E. R. A., the preparation of lantern slides for use in the exhibition series and for lecture work was continued, so that enough are now on hand to change the stereomotorgraph series at least eight times and to illustrate most of the branches of geology by this method. The photographer also made copies of rare publications in order to complete the libraries of several groups of fossil animals.

Work on the collections as a whole was greatly facilitated by other help furnished by the F. E. R. A. and also by two assistants on a research project secured through a grant to Dr. E. O. Ulrich, associate in paleontology, by the Geological Society of America.

The assistant curator, Dr. G. A. Cooper, devoted himself chiefly to the preparation of collections made by him in former years and in the period covered by this report. Large collections from Gaspé and Arkansas were prepared and are ready for labeling and distribution. Considerable time was spent in the preparation and study of Michigan Devonian collections.

Dr. C. E. Resser incorporated many specimens in the biologic collections and made progress on the Cambrian trilobite series. Dr. Lloyd Henbest practically completed the arrangement of the foraminiferal collection.

Dr. Paul Bartsch reports a continuation of the arrangement and classifying of the Cenozoic collections under his care by members of the staff of the United States Geological Survey engaged on their study.

Dr. Mary J. Rathbun continued her excellent researches on fossil crustaceans. She has assisted by identifying all current sendings of fossil crabs.

Acknowledgment is made of the assistance rendered by the members of the Geological Survey located in the department, for they have been of great help in the care of our very extensive Paleozoic, Mesozoic, and Cenozoic series of invertebrate fossils and especially of the paleobotanical collections.

Mounted skeletons of *Helaletes manus*, a tapirlike animal, and of the Oligocene rhinoceros *Trigonias osborni* were added to the exhibition series in vertebrate paleontology. The first is unique in being the only skeleton yet known of this animal complete enough to mount. A series of six model restorations illustrating the evolutionary development of the horse was also added.

N. H. Boss finished the mounting of the *Helaletes* skeleton and followed with the preparation for exhibition of a group of skeletons of *Platygonus*, an extinct peccary from Idaho. The skeletal parts of these five animals are retained in the position in which they were found, thus furnishing a graphic illustration of the manner of embedding.

T. J. Horne completed the mounting of a composite skeleton of *Trigonias osborni* and has a skeleton of *Moropus* well under way.

During the latter part of the year the energies of the entire preparatory staff were given over to the preparation of the 1934 *Plesippus* collection in an effort to make the specimens promptly available for a study of the entire assemblage, and to make the duplicate materials ready for exchange.

INVESTIGATION AND RESEARCH

By members of the staff.—Research work on early Paleozoic sponges, Silurian corals of Siberia, recent Bryozoa of Puerto Rico, and fossil echinoderms engaged the head curator during the past year. He completed a manuscript on "Descriptions of Paleozoic Fossils from the Central Basin of Tennessee", based on the Museum's extensive series from that area. His study of the group of echinoderms known as Edrioasteroidea, utilizing the specimens in the Springer collection, resulted in two papers, one on the classification and new species and another wherein all remaining species of the order are described and illustrated. Preparatory to further work efforts were directed toward the bibliographic catalog of the echinoderms and the portion relating to the Cystidea was completed. As in the case of the Edrioasteroidea, it is hoped to straighten out the complicated synonomy of the Cystidea by future work on the Springer collection. To this end, Miss Margaret Moodey was engaged for part of the year in bibliographic research on the crinoids and related groups.

Because of the exceptional research facilities in Washington, both in libraries and study material, it is believed that nomenclatorial work should be carried on actively at the Museum and published for the benefit of those not so well located. Therefore, during the past few years all the known genera of fossil and recent Bryozoa were studied, their classification, bibliography, synonymy, genotypes, and other matters of interest to a systematist determined, and the whole now published as part 67 of the Fossilium Catalogus. The Paleozoic Ostracoda likewise were studied and published by the Geological Society of America, under the joint authorship of Dr. Bassler and Miss Betty Kellett.

The acquisition of new material relating to the borate deposits, especially a series of well cores from the salt body at Searles Lake, increased the scope of Dr. Foshag's investigation of the borax deposits, but the detailed study of these cores is not completed. He also finished a petrological and chemical investigation of the Pasamonte meteorite.

E. P. Henderson made a petrological and mineralogical study of the Moore County, N. C., meteorite and completed an investigation

of a new occurrence of the rare mineral pyroxmanganite. Chemical analyses of triplite, various anorthitic feldspars, and rhodonites, were also made.

Dr. C. E. Resser advanced his *Agnostus* monographic studies, completed and published a brief paper on the Cambrian rocks of the Northwestern United States, and prepared the first of two articles embodying nomenclatorial changes. He also completed his studies of the *Olenellus* zone of the Appalachian Lower Cambrian made jointly with Prof. B. F. Howell.

Dr. G. A. Cooper completed his paper on the brachiopod family Triplesiidae and in collaboration with Dr. Cecil Kindle, of the College of the City of New York, finished a report on fossils collected in Gaspé during 1932. With Dr. E. O. Ulrich he completed a paper on certain rare, long-beaked, Silurian brachiopods from Arkansas and elsewhere and made considerable progress on their Ozarkian-Canadian brachiopod monograph. Finally, Dr. Cooper initiated a study of the Middle Devonian of Michigan preliminary to field work on the subject.

Dr. E. O. Ulrich, in addition to work on his monographs upon the cephalopods and other groups of the Ozarkian and Canadian system, completed an intensive study of the paleontology and stratigraphy of the Mohawkian rocks of the Mississippi Valley and continued similar works on the Richmond and associated formations of the Interior Plains and Colorado. Dr. Ulrich's experience and knowledge have as ever been at the service of his associates, with the result that many little-known collections were properly classified.

Dr. A. F. Foerste, in addition to his work on Early Paleozoic cephalopods with Dr. Ulrich, completed two extensive papers, one on the Silurian stratigraphic nomenclature, and the second on Ordovician cephalopods from Wyoming.

C. W. Gilmore completed a monographic study on the osteology of *Apatosaurus*, under a cooperative arrangement with the Carnegie Museum of Pittsburgh. The latter half of the year, as other duties permitted, he devoted entirely to a monographic study of the fossil snakes of North America, a research now about three-quarters completed.

Dr. C. L. Gazin prepared papers on the following subjects: "A Marsupial from the Florissant Beds (Tertiary) of Colorado"; "Fossil Horses from the Late Pliocene of Southern Idaho"; "Gravigrade Sloth Remains from the Late Pliocene and Pleistocene of Idaho"; "Fossil Hunting in Southern Idaho"; "A New Antilocaprid from the Upper Pliocene of Idaho"; and "Annotated List of Pleistocene Mammalia from American Falls, Idaho." The closing quarter of the year he spent in extended research on the *Plesippus* materials, which he began during the previous year.

Dr. Remington Kellogg, as in previous years, continued researches on the cetacean collection, particularly this year on the zeuglodonts.

Work upon the fossil plant collections was carried on energetically through the investigations of Drs. R. W. Brown and C. B. Read, of the U. S. Geological Survey, and, until his lamented death, by Dr. David White, associate curator. Dr. Read, specializing upon Paleozoic floras, opened up a new field in paleobotanic research with his studies of the internal structure of Devonian plant stems, which he collected in considerable abundance at various Ohio Valley localities. He spent the latter half of the year in preparing for publication various papers upon Coal Measures floras, especially the Illinois Pottsville left by Dr. White. Dr. Brown, in his researches upon post-Paleozoic plants, continued the study of floras associated with the Cretaceous-Tertiary boundary, revised the collections from the Potomac formation and the Miocene formations of the Northwestern States, and published several papers of unusual general interest.

Dr. L. W. Stephenson completed an interesting study of Cretaceous fossils dredged up from a submerged deep canyon on the outer edge of Georges Bank, forming the border of the Atlantic Continental Shelf. He likewise described a considerable fauna of Upper Cretaceous fossils from a boulder dredged by fishermen from Banquereau off the coast of Nova Scotia. Dr. Edwin Kirk continued his studies of fossil crinoids with attention to various rare specimens secured through the Springer fund. Dr. Charles Butts spent the entire year in the preparation and study of extensive Paleozoic collections from western Virginia for use in his State report upon this subject now practically completed.

The study of the Cenozoic fossils was carried on as before by specialists of the United States Geological Survey. Dr. W. C. Mansfield continued his researches on the Tertiary fossils of the Southeastern States; Dr. Julia A. Gardner devoted her attention to the same faunas of Texas and the adjacent Mexican territory; Dr. C. Wythe Cooke is continuing his revision of the Tertiary echinoids from the Southeastern United States; Dr. Ralph W. Stewart worked on the Pliocene marine fauna of the Kettleman Hills of California; and Dr. W. P. Woodring studied the Pliocene and Pleistocene fauna of San Pedro, Calif.

Research by outside investigators aided by Museum collections.—Dr. Charles Merriam, of Cornell University, devoted several months to the study of western Devonian fossils. Dr. Cecil Kindle, College of the City of New York, spent many week ends working on the fossils from Gaspé. The Paleozoic collections of invertebrate fossils were consulted during the year by Dr. Bradford Willard, Pennsylvania Geological Survey, studying the Eurypterida and upper Paleozoic; Dr. Andrew McNair, University of Michigan, interested in

Devonian Bryozoa; James S. Cullison, Missouri School of Mines and T. V. A., working on the early Paleozoic of the Appalachians. Dr. Charles Diess, University of Montana, spent several months reviewing the Cambrian fossils of the Western States, while Dr. Christina Lochman, Mount Holyoke College, pursued researches upon the Cambrian of Missouri and Texas.

The paleobotanic collections were studied by Prof. Hamshaw Thomas, Cambridge University, who delivered a lecture at the Museum on the origin of angiosperms. Others who studied the fossil plant collections include Mrs. Betty Watt Brooks, Carnegie Museum, Pittsburgh, and Dr. Chester Arnold, University of Michigan.

The foraminiferal collections were consulted by Mrs. Helen Jeanne Plummer, Austin, Tex., and Miss Marie Stadnichenko, International Petroleum Co., Negritos, Peru.

The Paleozoic cephalopods were studied by Prof. A. K. Miller, University of Iowa, and Dr. Frederick Plummer, Austin, Tex.

Dr. George Gaylord Simpson reports good progress in the study of our Paleocene mammal collection, a work that he hopes to complete during the coming year. Dr. R. S. Lull, director of the Peabody Museum of Natural History, spent several days studying dinosaurian specimens in connection with his monographic research on the predentate Dinosauria. Leslie E. Wilson, an advanced student of Yale University, spent a month at the Museum carrying on his researches on the fossil Cetacea. Specimens were lent to further various research problems to the following investigators: Dr. L. R. Dice, University of Michigan; R. W. Wilson and Dr. Chester Stock, California Institute of Technology; Drs. C. L. Camp, R. A. Stirton, and V. L. Vanderhoof, all of the University of California; Dr. C. C. Mook, Childs Frick, and Dr. Barnum Brown of the American Museum of Natural History; John Burke, of the Carnegie Museum; and F. W. Johnson, of the University of Nebraska.

DISTRIBUTION AND EXCHANGE OF SPECIMENS

Geological specimens were distributed as follows: Gifts, 2,185 specimens; exchanges, 1,197 specimens; loans for study, 949 specimens; transfers, 24 specimens.

NUMBER OF SPECIMENS UNDER DEPARTMENT

The estimated total of specimens in the department is as follows:

Mineralogy and petrology	145,810
Geology, systematic and applied	96,270
Stratigraphic paleontology	1,917,107
Vertebrate paleontology	27,796
Total	2,186,983

DEPARTMENT OF ARTS AND INDUSTRIES

(Carl W. Mitman, *Head Curator*)

There is considerable gratification in being able to report that the industrial and engineering collections are now in better condition than at any time in the history of the department.

In addition to his regular duties during the year the head curator continued as contact officer of the Smithsonian Institution for the Century of Progress Exposition, Chicago, Ill., as well as for the California Pacific International Exposition, San Diego, Calif. This involved the supervision of maintenance of the Smithsonian exhibit at Chicago and its dismantling and return to Washington, as well as the design, supervision of construction, and installation of a new exhibit at San Diego.

Mary E. Dillingham was appointed junior scientific aid in the division of textiles in October as the result of a Civil Service examination. On September 30, 1934, Robert Mooney resigned as under scientific helper, division of graphic arts, and this place was filled on November 21, 1934, by the appointment of C. Allen Sherwin.

During the year the work division of the District of Columbia through the Federal Emergency Relief Administration assigned 8 employees to the division of textiles and 3 to the division of engineering, all of whom rendered useful service in clerical and preparatorial work.

ACCESSIONS

The number of accessions—231, yielding 3,808 specimens—was slightly more than the previous year, while the number of specimens was about 2,000 less. Their distribution was as follows: Engineering, 264; textiles, 422; organic chemistry, 1,026; wood technology, 151; history of agriculture, 15; medicine, 628; graphic arts, including photography, 1,302.

Engineering.—The 264 specimens included in the 76 accessions received in this division were distributed as follows: Aeronautics, 146; mechanical technology, 117; mineral technology, 1.

The outstanding accession in aeronautics was the sailplane *Falcon*, built in 1934 by the Bowlus-Dupont Co., San Fernando, Calif., for Warren E. Eaton, World War pilot and founder and president of the Soaring Society of America. This motorless aircraft illustrates excellently modern progress in aerodynamic efficiency. In July 1934 Mr. Eaton piloted it to an altitude of 9,094 feet at Big Meadows, Va., the highest altitude above sea level yet attained by motorless craft in America. A similar sailplane, piloted by Richard Dupont, estab-

lished a world record of 158 miles for soaring distance on June 25, 1934. The *Falcon* is the gift of Mrs. Genevieve Eaton, Norwich, N. Y., and adds a new type to the remarkable series of historic gliders in the section. Another important accession was the gift of a Maybach engine, type VI–2, the same type as that used in the *Graf Zeppelin* and other noted recent airships. These engines develop 560 horsepower at 1,600 revolutions a minute, are directly reversible, and have a remarkable record of 2,500 hours of service between overhauls. F. W. von Meister, agent in the United States for the Maybach Motor Co. of Germany, arranged for the presentation to the Museum. In contrast to this modern engine, there was received an old Roberts engine made in 1911 in Sandusky, Ohio, which is said to have developed 50 horsepower in a Bleriot monoplane. It was donated by Mrs. Flora O'Toole, Winthrop, Mass., who was assisted by Roy Waite, an early pilot, in procuring the engine for the Museum. An interesting accessory to an aeronautical power plant is the supercharger assembly of the airplane in which Lt. Apollo Soucek established a world altitude record of 43,166 feet in 1930. This was transferred from the Navy Department.

Aeronautics' series of airplane propellers, now numbering over 100 specimens, was enhanced by the gift of a Hamilton standard controllable-pitch propeller from United Air Lines. For the development of this type the Hamilton-Standard Co. was awarded the Collier Trophy in 1933, and the one received is the first to complete 2,500 hours of air service. Pan-American Airways donated another Hamilton-Standard propeller, not a controllable-pitch type, which had been used for over 350,000 miles of flying in the United States, Mexico, and Central America, and still appears to be in excellent condition. The Westinghouse Electric & Manufacturing Co., Pittsburgh, kindly added a propeller made of micarta, which is a pressed formica product of great durability. Its worth was notably demonstrated in the propellers on the *Bird of Paradise*, a Fokker plane that first flew the Pacific in 1928.

The magnetic compass used by Admiral Byrd in his flight over the North Pole, 1926, was transferred to the Museum by the Navy Department. This compass served an important part in the flight for its accuracy enabled him to navigate safely back to his base after his sextant was broken. It is a Campbell-Bennett aperiodic type, of English manufacture. Rauol J. Hoffman, aeronautical engineer, of St. Petersburg, Fla., donated two interesting old designing instruments, which he devised in the pre-war era: A propeller pitch-meter and a "Triple-Slide Aeroplane Calculator."

Thirteen additions were made to the excellent series of scale model aircraft, the majority of which are constructed to the standard scale

of one-sixteenth size. Of outstanding merit are the transport model given by the Boeing Airplane Co., Seattle; the seaplane patrol model given by the Consolidated Co., Buffalo, N. Y.; and the model of the Sikorsky S–42, of recent Pacific flight fame, presented by Igor Sikorsky. Other models of airplanes of recent design include the Waco "Straightwing" presented by the Waco Aircraft Co., Troy, Ohio, and the Italian speed record holder Macchi-Castoldi 72 given by Carl Smith, Sesser, Ill. Grover Loening presented a model of his M–8 military design airplane of the World War period, and through the kind assistance of J. L. McClane, there was received from the Chance Vought Co., East Hartford, Conn., a model of the Dayton-Wright R–B monoplane, which with many advanced features was an entry in the 1920 Gordon Bennett race. There was received, too, from James V. Martin a model of his early tractor biplane with which in 1911 at Hempstead, Long Island, he won a race with T. O. M. Sopwith of England; J. Edward Reeves, made and presented a model of Lt. Russell Maughan's ship in which the famous transcontinental dawn-to-dusk flight of 1923 was made. Three models of interest originated in the division laboratory: A "Valkyrie", English canard pusher of 1911; a Burgess-Dunne inherent stability type of 1914, which was originally produced by combined English and American talent; and a Curtiss Night Mail plane of 1923.

The collection of materials pertaining to aircraft construction was enhanced by a series of aluminum alloy fittings and airship girders, presented by the Goodyear-Zeppelin Corporation and others through the cooperation of the Aluminum Co. of America, and by a wing panel and fuselage section from a Douglas O–38 biplane transferred from the War Department. Lately there was received as gifts a variety of early aircraft literature and mementoes, including a large collection of photographs, drawings, books, and clippings collected by Fay Leone Faurote, New York, during his long association with the aeronautical and automobile industries; data on the first international air meet, held at Rheims, France, 1909, given by Daniel Long, Washington, D. C.; a poster announcing a flight in 1913 made at Portland, Oreg., by an early "bird-woman", Mrs. Alys McKey Bryant, given by herself; and a map and pictorial record of the first transcontinental flight, 1911, given by the Armour Co., Chicago, which assisted in sponsoring the flight.

In the section of mechanical technology, the watercraft collection was the most favored in the number and interest of the new accessions. Capt. Thomas F. McManus, Milton, Mass., who has designed about 500 fishing vessels and yachts, presented the original models of the schooner *James S. Steele* and the knockabout *Helen B. Thomas*, both of his design. The former, built in 1892, was the first schooner to combine the principal characteristics of the final form of the

New England fishing schooner. With few modifications the model forecast the so-called "fisherman's profile." The *Helen B. Thomas*, built in 1902, was the first knockabout fisherman, a type developed by Captain McManus to eliminate the bowsprit, which was the cause of a considerable loss of life from men being washed off the foot ropes in heavy seas, and which was also a source of trouble in maneuvering about wharves and harbors. Captain McManus, who is known as the "father of the fisherman races", also presented a painting made by W. P. Stubbs, about 1887, of a race between the schooners *John H. McManus* and *Carrie E. Phillips*, which were the winners of the first and second fisherman races in 1886 and 1887, respectively. Capt. William McCoy, Palm Beach, Fla., carved and presented a finely executed pictorial model of the knockabout *Arethusa*, of which he was owner and master and which also was one of the largest and finest of the later McManus designs. Modern fishing vessels are now represented by two plating models of steel steam fishing trawlers built by the Bethlehem Shipbuilding Corporation, Ltd., Quincy, Mass. The company presented the models from which several vessels were built during the period 1928–34. John H. Andrews, Cherrydale, Va., loaned a small model of the 7-masted steel schooner *Thomas W. Lawson*, and a blueprint of the sail plan of the same schooner, which had been deposited in the Museum several years ago by Ernest A. Perham, Washington, D. C., was entered as an accession from him.

A painting of a ship believed to be the *Neptune* built by William Webb at New York in 1855 for the Black Ball Line of Liverpool packets was presented by Miss Theora J. Bunnell, Baltimore, Md., who also gave a rigged model of a bark, the *Golden Gate*. Charles D. Beetle and Walter E. Channing, New Bedford, Mass., presented a lithograph of a drawing of the lines and equipment of a 28-foot Beetle whaleboat. Beetle whaleboats were generally considered the standard of strength and efficiency among the whalers sailing from New Bedford in the last century, and several saw service as equipment for Arctic expeditions. This drawing was made from the frames used in the construction of the original boats.

In the field of land transportation, the automobile collection was most fortunate. Upon the occasion of the thirtieth anniversary of the running of the first Vanderbilt Cup Race, William K. Vanderbilt, the original donor of the cup and the one for whom it was named, presented it to the Museum. The Vanderbilt Cup Races contributed to the development of the automobile industry by bringing the finest foreign cars to the United States where they could be observed in competition. The races were run annually, with a few exceptions, between 1904 and 1916. By a fortunate chance Charles R. Ashley, Kingston, N. Y., preserved a pair of tonneau baskets

from his 1903 Cadillac automobile, an exact duplicate of the one in the Museum, and presented them to the Museum so that this car is now arrayed in tonneau baskets, which considerably increase the quaintness of its appearance. Van Dusen's Garage, Hackensack, N. J., presented an interesting relic of automobiling before the days of the electric starter—an American Everready spring-driven engine starter of about 1906. This device is essentially a heavy spring connected by rachet couplings to the crankshaft in such a way that the engine in running would wind up the spring, providing energy available to spin the engine whenever needed.

One railroad accession was received—a well-made model of the locomotive *DeWitt Clinton* and train. The *DeWitt Clinton*, which was not represented before in the collection, was the third locomotive built by the West Point Foundry and made its first trip in July 1831, becoming, thereby, the first locomotive to run in the State of New York. The model, which won a high award in a national model-building contest, was made and loaned to the Museum by Peyton L. Morgan, Lynchburg, Va. An interesting bit of harness added to the collections of inland transportation is a double ox-yoke used until recent times in New Hampshire, which was the gift of S. H. Abbot. The bows of the yoke are set in blocks which slid along the beam, permitting the oxen to pick the best footing though the wagon or plow remained fixed in its path. At the same time a pinion and racks on the blocks keep the bows at equal distances from the center, in any position, presumably to distribute the work evenly to each beast.

In the field of communications the outstanding accessions include a microphone telephone transmitter and receiver used in the around-the-world telephone conversation demonstration of April 25, 1935. On that occasion Walter S. Gifford, president of the American Telephone & Telegraph Co., called Theodore G. Miller, vice president, who was in another room of the same building in New York. The call was routed through San Francisco, Java, Amsterdam, London, and back to New York, a total distance of about 23,000 miles, which the voice impulses traveled in one-fourth of a second. The transmitter and receiver used by Mr. Gifford were presented to the Museum by the company.

A substantial start in collecting radio material was made with the accession of a complete Western Electric 500-watt broadcast transmitter of 1922. This equipment represents one of the earliest of commercial broadcasting outfits and is the first of its type to be used in the South. Most of the parts received were used successively at stations WSB, Atlanta, Ga., and WGHB, Dunedin, Fla. (now consolidated with WFLA-WSUN). This was the gift of the Clearwater and St. Petersburg Chambers of Commerce. The speech input

equipment needed to complete the broadcaster was presented by the Prairie Farmer's station, WLS, Chicago. All this equipment, which was collected for the Museum by W. Walter Tison, executive vice president, Florida West Coast Broadcasting Co., will be used when space is available to reproduce an early broadcasting station.

In the field of power equipment, a model of an early wooden steam boiler, which was started in the division workshop by a C.W.A. employee, was completed during the year and has attracted some notice. It is strange to contemplate a boiler for the combustion of fuel and the generation of steam as made of wood, but the model is of one actually built and used at the Center Square Pumping Station of the Philadelphia Waterworks in 1801. It consists essentially of a cast-iron firebox, and flues, immersed in the water contained in a huge rectangular wooden tank. It was thought that the heat-insulating properties of the wooden chest would result in increased efficiency. The difficulties of maintaining the chest tight more than offset the slight advantage that did result and the idea was not used very long. C. F. Germeyer, Harrisburg, Pa., presented a nicely made scale model of a type of oscillating steam engine, several of which were used to furnish power to small shops in southern Pennsylvania in the latter part of the nineteenth century. The engine employs a common type of flat slide valve driven from an ingenious linkage between the oscillating engine cylinder and the fixed frame of the engine.

Two accessions were made in the electrical collections. One of these was the loan of medals awarded to Charles Francis Brush, pioneer electrical inventor, for achievements in the development of successful electric-lighting systems and efficient dynamo-electric machinery, by Charles Francis Brush, 3d. The medals, five in number, include the Rumford Medal of 1899 and the Chevalier, Legion d'Honneur. R. J. Achstetter, Washington, D. C., presented an Edison Manufacturing Co.'s 6-volt electric fan. This is a primitive fan with an open motor with long cylindrical fields of the early Edison type. It adds a very early commercial model to the growing series of electric fans.

Among the several accessions of early hand tools was that of a group of tools for making the old wooden well pump barrels and wooden pipe received from David L. Fiske, Grafton, Mass. These tools include a pod auger and its 13-foot handle used for boring logs to make long lengths of pipe and a rotary plane for pointing the ends of pipe sections to make the conical joints between lengths. Fortunately these tools supplement other pump- and pipe-making tools in the collection to establish a fairly complete kit. F. S. Kent, Barnstable, Mass., presented a two-handed blacksmith's die and a tap of some age, and Paul E. Garber, of the Museum staff, added

several old woodworking tools to those he has presented in past years.

The single accession in the section of mineral technology is probably as interesting as any one accession received by the division. It is the 60-inch telescope reflector disk cast about 1895 by the Standard Plate Glass Co. of Butler, Pa., for Dr. John Peate, who ground and figured the glass for the American University. The disk is made of a commercial grade of plate glass and was the largest successfully cast in the world up to that time and the largest cast in the United States until 1925. Dr. G. E. Howard, Butler, Pa., was in charge of the casting. The disk was deposited in the Museum by the American University. It has never been used in a telescope, though in the opinion of many it could be used successfully.

Textiles, organic chemistry, wood technology, foods, history of agriculture, and medicine.—The 2,242 specimens added to the collections of these 6 divisions and sections were contained in 96 accessions, 3 of which were joint accessions with other departments.

One hundred and eight specimens of new textile fabrics illustrating new weave structures, new combinations of fibers, and novelties in decoration and finishing were added to the collections. The Cotton-Textile Institute, New York City, continued its valued cooperation by contributing 70 specimens of cotton textiles of American manufacture, which were selected by a special committee of stylists and textile experts as representative of the best fabrics of the year. The Celanese Corporation of America, New York City, added 15 specimens to those contributed by this firm in previous years, comprising novelty dress and drapery fabrics made from cellulose acetate yarns and combinations of these with silk and wool. To the Mingtoy Silk Mills, New York City, the Museum is indebted for a gay assortment of piece-dyed, pure dye silks and specimens showing the process of screen printing silk fabrics. The Flatau Fabrics Corporation, New York City, contributed specimens of fabrics made from synthetic yarns dyed and printed in warp print effects for exhibition in comparison with real printed warps and crepes which this firm presented 2 years ago. Transparent velvets, illustrating combinations of silk and rayon and the sparkling effects obtained by the use of fine strands split from sheet cellophane, were added by L. & E. Stirn, New York City, to the exhibit of transparent velvets contributed by them in 1930. The Massachusetts Mohair Plush Co., Boston, Mass., continued its cooperation by contributing specimens of the figured plushes now used in the new streamline trains.

An interesting addition to the collection of early textile fabrics was that of a polychrome, block-printed cotton, presented by Joseph Winslow Place, Chicago, Ill., which was first used in 1806 to curtain a four-poster bed in the home of the donor's grandparents in Boston.

The block-printed pattern is supplemented by hand color work in order to make the fast dye green required by the floral design. This was done by successive applications of yellow and indigo blue, since green as a single color was not available for textile printing until after 1810. Some notable additions, too, were made to the collection of early American hand-worked textiles. Examples of beautiful old coverlets woven in simple geometric patterns on hand looms were received from George H. Kernodle and Mrs. Catherine Wilhelm, both of Washington, D. C. A blue and white double-woven coverlet made in Ohio in 1838, and a silk and wool French imitation of a Cashmere shawl were received as a loan from Mrs. G. H. Paull, Washington, D. C. Mrs. Thomas H. Dawson, Washington, D. C., presented an all-white quilted counterpane ornamented by an elaborate pattern, delineated in running stitch, which stands out in low relief on a closely quilted background. This was made in Connecticut during the first quarter of the nineteenth century. Of value to the study collection were portions of several hand-woven coverlets and a specimen of plaid, homespun, wool blanketing presented by Miss Ruth Brenner, New York City. A collection of samplers was received as a loan from Mrs. Henry Clark Coe, New York City and Washington, D. C. Included in the collection are a sampler map of England and Wales, and a number of early American, English, and French samplers, showing a variety of fine stitchery done on linen, wool, and cotton materials.

Through the kindness of Miss Elinor Merrell, New York City, the division held a special exhibition during the winter months of a collection of Toiles de Jouy, French printed cottons of the eighteenth and early nineteenth centuries. Among the printed fabrics shown were a number dealing with historical events in this country and France, and a Museum visitor, George Lester McKesson, Toledo, Ohio, upon viewing them offered a unique specimen for the division's collection. This is an infant's dress of printed cotton in a check pattern formed by the repetition of the dates 1776 and 1876. It was made for and worn by the donor in the year of his birth, 1876.

Specimens of hand-made laces, produced at Le Puy-en-Velay, Haute Loire, France, in 1929, were contributed by George Middleton, Washington, D. C. They were chosen to illustrate the use of a diversity of materials, such as silk, cotton, linen, wool, rayon, jute, straw, tinsel, and horsehair.

A diorama depicting the dramatic moment when Isaac M. Singer made the first successful trial of his sewing machine, in 1851, was presented by the Singer Sewing Machine Co. This was displayed at the Century of Progress Exposition in Chicago and now will be exhibited in the division with the original patent model of Singer's first sewing machine.

A small collection of agricultural and household implements, used by Chinese farmers and collected in China by the agricultural explorers Frank N. Meyer and P. H. Dorsett, was transferred from the United States Department of Agriculture. Included in this collection is a curious hand seed planter or seed-sowing tube used in Manchuria for planting grain.

The organic chemical industries exhibits were materially enhanced by the following gifts: A new exhibit illustrating the manufacture of bakelite and its products, from the Bakelite Corporation, Bound Brook, N. J.; pyralin molded products, from the DuPont Viscoloid Co., New York City; ureaformaldehyde molded products, from the Toledo Synthetic Products Co., Toledo, Ohio; a series of old and new cellulose nitrate products, from the Celluloid Corporation, Newark, N. J.; a new plastic derived from rubber, from the Goodyear Tire and Rubber Co., Akron, Ohio; and a synthetic rubber substitute, from the Thiokol Corporation, Yardville, N. J. Specimens illustrating cellulose lacquers were contributed by E. I. du Pont de Nemours & Co., Wilmington, Del., and specimens of cellophane by the Du Pont Cellophane Co. and Freydberg Bros., both of New York City. A series of specimens illustrating steps in the manufacture of such important solvents as butyl, ethyl, and methyl alcohols, and of acetone, obtained from field corn by fermentation, distillation, and synthesis, was presented by the Commercial Solvents Corporation, New York City. An exhibit showing the derivation and relationship of synthetic dyestuffs and their application to textiles, leather, paper, gasoline, and miscellaneous commodities was contributed by E. I. du Pont de Nemours & Co., Wilmington, Del.

To augment its diorama display on the manufacture of automobile tires, presented last year, the B. F. Goodrich Rubber Co., Akron, Ohio, donated a series of specimens, attractively arranged showing the materials used and the steps in the building of tires. The Cleveland Welding Co., Cleveland Ohio, presented a series of 32 chromium-plated cross sections of wheel rims for motorcycles, airplanes, passenger automobiles, and trucks to show the historical development of wheel rims for mounting rubber tires. The United Shoe Machinery Corporation, Boston, Mass., continued its cooperation of many years standing and donated a series of specimens illustrating the recently developed process for making women's shoes, together with a new series of specimens to show the successive steps in the manufacture of a woman's shoe by the Goodyear Welt Process. Contributions toward a composite exhibit contrasting the four main processes used in the manufacture of synthetic fibers were received from the Celanese Corporation of America, the American Bemberg Corporation, Arthur Beir & Co., all of New York City; the Narrow

Fabrics Co., Reading, Pa.; and Baker & Co., Newark, N. J. The last-named firm furnished spinnerettes of platinum-gold and palladium-gold alloys such as are used in the extrusion of synthetic fibers.

Among important additions to the collections illustrating wood technology are the following: An exhibit showing the manufacture and uses of Flexwood, a wall covering made from veneers cut from genuine selected cabinet woods, mounted on fabric, and rendered so flexible that it can be bent around corners parallel to the grain without cracking was received as a gift from the United States Plywood Co., New York City; plywood panel boards of western yellow and sugar pine, 2 feet wide and absolutely clear, treated with stains to develop a "two-color harmony" due to the different absorptive powers of early and late seasonal growth of the wood; also sandblasted picture panels which utilize specially selected grain patterns to form sky, water, and mountain backgrounds were contributed by the Red River Lumber Co., Westwood, Calif.; and from the Saginaw Furniture Shops, Saginaw, Mich., was received for inclusion in the Museum's exhibit collection of furniture woods a handsome small board of knotty aspen wood, such as is used by this firm. Specimens bearing on the history of papermaking in this country were received from George H. Marshall, Benton Harbor, Mich. Among these is an interesting scrapbook of notes concerning the paper trade assembled between 1860 and 1880 by the donor's father, who was a papermaker of great ability and who is said to have invented the method of making a wide sheet of paper of uniform thickness. A panel of white oak on which are mounted acorns of the species of oaks producing commercial white oak lumber, and a mount of the leaves of commercial white oaks framed in bark of Italian oak were made and presented by William F. Bucher, Washington, D. C.

Three sets of specimens were received for the increasingly valuable study collection of woods: 22 woods collected for the Museum with botanical material, on Upper Matecumbe Key, Fla., by Gerrit S. Miller, Jr.; 24 specimens obtained from trees, mostly foreign, which were felled in the old Botanical Garden and other park spaces in Washington during 1934–35; cabinet woods from the National Rifle Association of America, which had been submitted to that body for a report on their suitability for the wooden parts of firearms.

The most valuable addition to the collections of the division of medicine was a series of 31 dioramas illustrating historical and modern phases of medicine-making, presented by the Upjohn Co., Kalamazoo, Mich. The exhibit is contained in 3 large wall cases, joined end to end for a length of approximately 25 feet, each case containing 3 rows of dioramas. By a unique method of installation involving the tilting of the upper and lower rows, scenes in all

three rows may be seen from a single line of vision. Beginning with a seventeenth-century monastery apothecary shop, the story of medicine-making is depicted in an interesting manner. Among the 31 views are a nineteenth-century pharmaceutical laboratory, a consultation by a physician and a manufacturing pharmacist's representative, a present-day pharmaceutical manufacturing plant, bacteriological research, the milling of crude drugs, and the manufacture of pills and capsules. Merck & Co., Rahway, N. J., donated a model of a sixteenth-century medicine-making laboratory showing a research worker of the past in his shop presumably endeavoring "to generate an elixir of life", and "transmute all kinds of metals one with the other, and this by a proper medicine." From Mrs. Ida C. Williams, Baltimore, Md., there was received as a gift an interesting collection of apparatus and equipment used in Baltimore drug stores about the middle of the nineteenth century assembled by her late husband, Dr. Lawrence S. Williams. The collection includes show globes, ointment jars, stock bottles, mortars and pestles, a hand balance and weights, powder folder, and pill finisher. Dr. J. T. Lloyd, Cincinnati, Ohio, donated a set of rubbing stones such as were used for grinding medicines and foods prior to the development of the mortar and pestle. Dr. Anton Hogstad, Jr., Rahway, N. J., contributed a "Dr. C. H. Fitch Prescription Scale", patented in 1885, and a folding spatula, neither of which was represented in the collection. J. B. Magnus, New York City, presented a druggist's cork press of the type that came into use about the middle of the nineteenth century, and Miss M. D. Ashton, of the Museum staff, deposited an eighteenth-century, English, machine turned and polished, lignum vitae mortar and pestle.

The principal addition to the history of medicine section was a gift by the Bausch & Lomb Optical Co., Rochester, N. Y., of a collection of ophthalmic lenses and pictures of spectacles arranged to illustrate the history of eyeglasses. The collection includes examples of convex and concave lenses, which originated in the thirteenth century; Benjamin Franklin's bifocal lenses of 1784; sphero-cylindrical lenses of 1827 for the correction of astigmatism; and special types of lenses, such as fused bifocals with practically no prismatic displacement or jump at the dividing line. A plaster model illustrating the ceremony of Royal Touch for the cure of King's Evil (scrofula) was presented by Miss Elizabeth Gurney, St. Cloud, Minn. The specimen makes an impressive addition to the collection of magic and psychic remedies used, in the past as well as the present, for the cure of disease. Other gifts to the history of medicine section were a scarificator and lancet, from Dr. H. S. West, St. Clairsville, Ohio; a pair of plano-convex eyeglasses made about 1890, from Lee M. Watkins, Alexandria, Va.; two books, from Dr.

Riley D. Moore, Washington, D. C.; Clark's "Applied Anatomy" and "Diseases of Women", from the American Osteopathic Association, Chicago, Ill.; and Downing's "Osteopathic Principles in Disease", from the Downing Osteopathic Group, San Francisco, Calif.

The section of public health was enhanced by the gift of original paintings from the Metropolitan Life Insurance Co., New York City, to introduce the series of health panels covering the subjects of health progress, personal hygiene, health of the whole family, and diseases and statistics. The Spencer Lens Co., Buffalo, N. Y., presented 6 strip films, and the American Society for the Control of Cancer, New York City, donated 1 film. These films deal with health subjects and supplement the exhibits of the health gallery.

In the section of materia medica, gifts received during the year include the following: 123 specimens of essential oils and related substances from Fritzsche Bros., New York City; specimens of agar, chondrus, ergot, and lycopodium, from the R. Hillier's Son Corporation, New York City; Jobs-tears, cubeb berries, and *Cocculus indicus*, from S. B. Penick & Co., New York City; aloes and spearmint leaves, from Allaire, Woodward & Co., Peoria, Ill.; and laurel leaves from Peek & Velsor, New York City.

Graphic arts.—Included in the 59 accessions recorded during the year in the division of graphic arts are two of outstanding importance. The first was a complete Mergenthaler linotype (no. 9) deposited by the Mergenthaler Linotype Co., New York, with the cooperation of the Washington Evening Star. The machine was one of a large number that had been in constant use in the composing room of this newspaper since about 1915, and although not the latest model it contains all the principles of composing and casting justified lines of type in slugs. The machine is exhibited, with copy and matrices, with the division's valuable historical series of machines that cast justified lines of type.

The second acquisition of merit consisted of two accessions in the section of photography received as gifts from the Bell Telephone Laboratories and E. A. Lauste, New York, respectively. The two accessions consist of 80 specimens, most of which pertain to the late Mr. Lauste's inventions in the recording and projection of sound from film for talking motion pictures. There are in addition an early motion-picture projector and several pieces of experimental apparatus for sound recording developed by Jean Acme LeRoy and Ernst Ruhmer, respectively, in the Bell Telephone Laboratories. This collection materially enhances the Museum's valuable and constantly growing series pertaining to motion-picture photography.

From Mrs. Ozias Dodge, Norwich, Conn., the division of graphic arts received as a gift a collection of much of the experimen-

tal materials used by her late husband. Ozias Dodge was a pioneer experimenter and inventor in the photomechanical field, and the specimens received consist of prints, screens, and intaglio and relief plates, as well as drawings for his process. Most of the specimens of rotary gravure in the section extending 40 years back are the work of Rembrandt Photogravure, Ltd., London, and during the current year the company presented a series of specimens showing the making of a rotary intaglio print. Most rotogravure prints are made from solid cylinders, but in this instance thin plates of copper were used, placed around a cylinder inked and printed in the usual manner.

Dr. Walter Hough, of the Museum staff, gave a miscellaneous collection of etchings, engravings, mezzotints, lithographs, drawings, and photomechanical prints, which are especially interesting and valued because many of the examples were the work of Spanish artists and engravers. Other artistic prints were received from the following: 17 wood-block-prints-in-color from Rudolph Ruzicka; 4 lithographs from Albert Winslow Barker; and one etching or drypoint from each of several artists—Charles W. Dahlgreen, "The Dunes"; Y. E. Soderberg, one of his excellent yachting prints; and C. Allen Sherwin a delicate drypoint entitled "Dreaming."

Alton B. Carty, of the District of Columbia branch of the Educational Committee of the International Association of Printing House Craftsmen, keeps record of all the new inventions in printing and has donated numerous specimens he has collected. This year he presented a series relating to the use of celluloid instead of copper or zinc in making photomechanical reproductions. The claims of this new method are quickness and economy, for a plate can be finished in about 20 minutes and at about half the cost of a metal plate. Sidney A. Kimber, University Press, Cambridge, Mass., gave two early examples of the "washed out" process. These were experimental prints made by W. H. Mumler, the inventor, on February 20, 1874, over a year before his patent was granted on May 18, 1875.

An interesting pamphlet, "Early Connecticut Printing", by Albert Carlos Bates, was presented by E. H. Hugo. It was produced by Mr. Hugo and Gregg Anderson, of the Meriden Gravure Co., Meriden, Conn., to sponsor better printing and is printed upon a soft shade of gray paper that has a tendency to reduce eye fatigue.

A variety of interesting and valuable specimens of photographic equipment were received as gifts during the year. From the Estate of Rudolph Eickemeyer, Yonkers, N. Y., came 188 pieces of apparatus; Mrs. C. Francis Jenkins, Washington, D. C., presented a portrait of her late husband and a model of an airplane mapping camera, Mr. Jenkins' last work; a dicoscope along with 24 views of the 1925 Paris Exposition was received from Mrs. Mary O. Petrocelli, Brooklyn, N. Y.; Miss Anna E. Gott, Brumley, Mo., donated a

beautiful walnut stereoscope, or graphoscope, as it was called in 1895, and Mrs. M. B. Benson and her sister, Miss Esther Hunt, Baltimore, Md., gave an original megalethoscope of the period of about 1880. From the United States Geological Survey was received as a transfer an original Bagley trilens aerial mapping camera, which was designed by Maj. J. W. Bagley and built in 1917 by C. H. Au. Most aerial cameras of today for map work are patterned after this model.

Of more than passing importance and historical value were two negatives of Abraham Lincoln, transferred from the Post Office Department through W. W. Howes, First Assistant Postmaster General. On being broken in transit through parcel post, they became the property of the Government through settlement. These negatives were adjudged to be originals taken by Alex. Hesler, Chicago, Ill. In addition to this accession, examples of color photography were donated by Carlton E. Dunn, New York, and Louis Pollak, Manchester, England.

A tintype, daguerreotype, and ambrotype, respectively, were received from Mrs. James E. Benedict, Silver Spring, Md., Mrs. H. S. Owen, Stonington, Conn., and Miss Ethel D. Barker, Upland, Calif., while important additions to the pictorial collection were made by Edward P. McMurtry, Pasadena, Calif., F. B. Bristow, Salina, Kans., and Sigfrid A. Larson, Washington, D. C.

INSTALLATION AND PRESERVATION OF COLLECTIONS

Engineering.—The two largest installation projects in engineering completed during the year were the reinstallation of the entire watercraft collection following the renovation of the boat hall and the repair, assembly, and suspending of the Wright E–X airplane of 1911. The watercraft collection, though unavoidably crowded, is undoubtedly in the best possible condition under existing facilities and presents an attractive appearance. The Wright E–X airplane, which made the first flight across the United States, was received in such condition that a complete restoration was necessary before it could be installed. In addition to these projects there were made many individual rearrangements of exhibits of aircraft, calculating machines, and typewriters.

Much time and effort of the aid and the preparator were taken up in an exchange of storage and office rooms with the division of history. This work involved the moving and temporary storage of about half of the volume of storage collections in the division. The rearrangement will provide more adequate space for both the departments concerned. In addition to this the renovation of the workshop of the division added much work in taking down tools

and fixtures and the reerection and rearrangement of these in improved positions and combinations.

Textiles, organic chemistry, wood technology, foods, and medicine.—A total of 20 exhibit cases and 34 individual specimens of new textile materials were installed, and 28 cases and 9 individual specimens of material received in previous years were rearranged or reinstalled during the year. These included new cotton fabrics for 1935; new synthetic fiber fabrics; old quilts, bedspreads, and coverlets; and a new central location for the famous Slater cotton-spinning frame, the oldest piece of cotton-mill machinery in the United States.

In the section of organic chemistry several new installations and rearrangements of older exhibits were made, all designed to enhance the educational value of the collections. Similarly a number of exhibit rearrangements were made in the section of wood technology. In addition, 50 specimens cut from woods, received in previous years, were placed in the study collections, and duplicate specimens, numbering 1,376, mostly from Salvador and Argentina woods, were cut and planed for distribution and exchange.

In the division of medicine, 12 new and 40 rearranged installations of previously accessioned material were made. The more important of these were 31 dioramas illustrating various stages of medicine-making; a series of pharmaceutical types showing the forms into which medicines are prepared for administration; and a collection of ophthalmic lenses and spectacles outlining the progressive development of eyeglasses.

Graphic arts.—Except for the installation of the full-size linotype machine, which involved several minor changes in other exhibits, no major changes were made. Considerable work was involved in the preparation of 20 special exhibits as well as of the traveling exhibits on "How Prints are Made." The special exhibits were held as follows:

GRAPHIC ARTS

British Government.—Museum publications by—5,284 specimens, September 7 to September 30, 1934.

Albert W. Barker.—51 lithographs, October 8 to November 4, 1934.

Carl Oscar Borg.—50 drypoints, November 5 to December 2, 1934.

Gifford Beal.—50 etchings, lithographs, water colors, and drawings, December 3, 1934, to January 2, 1935.

Charles W. Dahlgreen.—50 etchings, January 3 to January 27, 1935.

Ralph L. Boyer.—51 drypoints, January 28 to February 24, 1935.

William Woollett.—41 lithographs, February 14 to March 17, 1935.

Yngve Edward Soderberg.—50 etchings and drypoints, February 25 to March 24, 1935.

Alfred Hutty.—53 etchings and drypoints, March 25 to April 21, 1935.

Harrison Cady.—45 etchings, lithographs, water colors, and drawings, April 22 to May 19, 1935.

PHOTOGRAPHY

Camera Club, New York City.—Members' show, 60 prints, September 1934.
Alfred Cheney Johnston.—58 prints, October 1934.
Photographic Society, Philadelphia.—60 prints, November 1934.
Miss Ruth Kilbourne.—51 prints, December 1934.
Sigfrid A. Larson.—51 prints, January 1935.
Edward P. McMurtry.—50 prints, February 1935.
Association Telephone Camera Clubs.—50 prints, March 1935.
William Clive Duncan.—40 prints, April 1935.
W. R. MacAskill.—59 prints, May 1–20, 1935.
American Pictorial Photographers, London.—Invitation exhibit, 155 prints, May 20–June 20, 1935.

While the maintenance and improvement of the collections in the public exhibition halls rightfully demand a goodly portion of the time of the department's staff, the care of the stored and study collections, as well as the proper maintenance of the voluminous records of collections, is an added duty and responsibility. The fight against natural deterioration of objects, destruction by insects and other pests, and decomposition and fading of specimens due to the action of light is a never-ending one. This involves periodic inspection, fumigation, change in location, application of preservatives, and alteration of storage or study facilities. The staff now is responsible for the preservation of about 125,000 specimens of almost every conceivable composition, shape, and size from tacks to locomotives and sows' ears to silk purses. Each year sees an increment to these collections of over 3,000 objects.

INVESTIGATION AND RESEARCH

Outstanding research undertaken during the year was the special work of W. N. Watkins in the establishment of a collection of positively identified study samples of woods affected by the Dutch elm disease. This was done to assist the Government in its effort to stamp out this pest which gravely threatens one of our finest native trees. In connection with this all suspected woody material intercepted at the ports of entry by the Bureau of Entomology and Plant Quarantine was forwarded to the Museum for study and identification.

The department's collections are in constant use by outside investigators engaged in a variety of studies. Of unusual interest, in this connection, were the following activities:

The characteristics of the Peate 60-inch telescope reflector disk of 1895 became of particular interest because of the casting of the 200-inch disk at the plant of the Corning Glass Works, Corning, N. Y., in 1934, and its stimulation of interest in the American history of telescope-disk making. Consequently, Drs. G. W. Morey

and F. L. Wright, of the Carnegie Institution of Washington, spent some time in the division of engineering making measurements and tests of the Peate disk. Robert Stephenson & Co., locomotive builders at Newcastle-on-Tyne, England, for over a century, applied to the division of engineering for information to settle a controversy in regard to the construction of the pistons of their locomotives of about 1829. Though an original Stephenson locomotive, the *Rocket* of 1829, is preserved in the Science Museum, London, the original pistons are known to have been replaced, and it appears that the only piston now preserved anywhere that can reasonably be believed to be of the period in question is that in the cylinder of the Stephenson locomotive *America* preserved in the National Museum.

As in former years the staff rendered a variety of assistance to Federal bureaus and private individuals. The aircraft collection yielded valuable data to the Departments of War, Navy, Justice, and Commerce, and Agriculture, Commerce, and the Veterans' Administration were given assistance in the identification of woods and seeds. Information furnished to private citizens ranged from the use of cotton and rubber in medicine, the tanning of skins, and the identification of the timbers of an ancient submerged vessel to determining the date of manufacture of watches and pins.

DISTRIBUTION AND EXCHANGE OF SPECIMENS

The distribution from the department totaled 2,452 specimens, of which 2,442 were given or lent for educational or research purposes and 10 exchanged for material already received. The largest single loan was that of 2,335 specimens distributed among 6 traveling exhibits of graphic arts, showing during the year in 14 States.

NUMBER OF SPECIMENS UNDER DEPARTMENT

The number of specimens in the department was 124,330 assigned as follows:

Engineering	15,676
Textiles	14,209
Wood technology	9,407
Organic chemistry	21,428
Foods	977
Agricultural history (estimated)	1,222
Medicine	17,703
Graphic arts, including photography	42,395
Loeb collection of chemical types	1,313
Total	124,330

DIVISION OF HISTORY

(THEODORE T. BELOTE, *Curator*)

The arrangement of the collections in the exhibition series and in the storage series claimed the attention of the staff of the division of history during much of the past year. Although no new exhibition space was added, more space was assigned for historical storage purposes, including rooms on the second floor of the southwest tower of the Arts and Industries Building. Progress in the work on the study collections has been especially gratifying and with the new cases that have been provided the materials are already in better condition than ever before.

ACCESSIONS FOR THE YEAR

Though fewer than usual the additions to the historical collections during the year (67 accessions consisting of 1,682 specimens) include a number of more than the average interest.

To the art collections were added a marble bust of Gen. John J. Pershing by Moses Dykaar, presented by the estate of Maj. Gen. George O. Squier, and an original drawing done by James Montgomery Flagg for a United States Army recruiting poster entitled "I Want You for the United States Army" presented by the artist. A large Sevres vase, which was presented to the Society of the Cincinnati in 1903 by the French Government in recognition of the courtesy extended by that society to the French Mission to the United States on the occasion of the unveiling of the Rochambeau statue in Washington, D. C., in 1902, was deposited in the National Museum by the society. Material of antiquarian interest included a gold brooch set with pearls and jet and containing a design woven from the hair of Gen. U. S. Grant and a silver fork used by him during the Civil War. Also there may be mentioned a miniature gold spike engraved "Last Spike P. R. R.—Driven May 10, 1869" and a gold key used as a pin. These mementoes of the career of General Grant were presented to the Museum by Jesse Grant Cramer through Mrs. Cramer. Other objects of antiquarian interest received were a fan and a parasol donated by Mrs. Thomas H. Dawson through Mrs. Carl W. Mitman.

A pair of American dueling pistols made during the early part of the nineteenth century was presented by Frazier D. Head.

A number of additions were made to the military collections. Of special importance was a series of objects owned by Brig. Gen. Francis Frederick Millen of the Mexican Republican Army during the period of the French occupation of Mexico and the reign of the

Emperor Maximilian, 1862–67. The collection includes a sword and scabbard, uniform coat and trousers, epaulets, spurs, and various other military accessories of the period. Of special interest are two decorations awarded to General Millen by the Mexican Government in recognition of his services during the troubled period of the French occupation. In addition General Millen received a badge commemorating the preparations made by the De Lesseps Co. for the construction of a canal through the Isthmus of Panama in 1880. Among the additions to the naval collections received during the year was the handsome gold-mounted sword presented to Rear Admiral Arthur Lee Willard, United States Navy, by the State of Missouri in 1904 in recognition of his services as lieutenant during the Spanish-American War. This sword was given to the Museum by Mrs. Willard. Other interesting additions to the naval collections included a sword worn by Commander Edward M. Hughes, United States Navy, at the battle of Manila Bay, May 1, 1898, and various medals and insignia worn by Commander Hughes at times during his naval career, 1870–1903, and presented by Mrs. Hughes.

The numismatic collections were increased by the following pieces: Two specimens each of the United States cents, nickels, dimes, quarter-dollars, half-dollars, and dollars struck at the Philadelphia mint in 1934, received from the United States Bureau of the Mint; 10 foreign coins struck during 1932–34, received from the American Numismatic Association; a collection of 30 pieces of Mexican paper currency issued during 1913–15, received from John E. Graf; 2 specimens of the medal struck at the United States mint in Philadelphia in commemoration of the inauguration of President Franklin Delano Roosevelt, March 4, 1933, received from the Bureau of the Mint; a bronze medal commemorating the three-hundredth anniversary of the founding of the Colony of Connecticut in 1635, received from Henry D. B. B. Moore; a silver portrait medal of the Danish zoologist Henrik Krøyer, received from Dr. J. P. Kryger; and a silver medal commemorating the career of the French parasitologist, Raphael Blanchard, received from E. K. Foltz. The philatelic collections were increased by 1,314 stamps, envelopes, and post cards transferred to the Museum from the Post Office Department, which received them from the International Bureau of the Universal Postal Union, Berne, Switzerland.

INSTALLATION AND PRESERVATION OF COLLECTIONS

The plan to install four special exhibition cases in the Smithsonian Building, to contain memorabilia of the four distinguished scientists who served as secretaries of the Smithsonian from 1846 to 1927, was carried forward. During the year two cases of the proposed series

were installed, one containing memorabilia of Joseph Henry, secretary of the Smithsonian from 1846 to 1878, and the other of Samuel P. Langley, secretary from 1887 to 1906.

The Henry material included portraits of Professor Henry and his mother; various diplomas and certificates awarded him by scientific societies; the Order of St. Olaf awarded him by the King of Norway in 1873; a Sevres vase presented to him in 1878; gold, silver, and bronze medals owned by him; and originals or copies of various pieces of scientific apparatus used by him in his scientific experiments. An electromagnetic machine, illustrating the arrangement of the large electric magnet devised and constructed by Joseph Henry for the Yale College Laboratory in 1831, and the trough battery built and used by Henry for his investigations in electricity also were included.

The Langley case includes portraits of Professor Langley, gold and silver medals awarded him in recognition of his scientific achievements, apparatus used by him in his scientific experiments, and a number of his published scientific works. Perhaps the most interesting single object in the case is a telephoto gun camera used by Langley in making pictures of birds while he was studying the science of aeronautics.

Important changes were made in the regular historical halls in the Arts and Industries Building. The removal of the Henry materials from the north hall made it possible to reestablish the Cyrus W. Field case as a unit and to install the Edward M. Hughes collection of naval relics in the case formerly occupied by the Henry collections. Also the McKinley death mask and coat were placed in a single case.

A new steel safe and eight new standard quarter-unit storage cases were provided for the study material in the philatelic collection. These will protect adequately the philatelic materials now in the office of the philatelist.

A new large section of the cabinet for the exhibition series of stamps was installed to replace two smaller sections. This completes the installation of 4 symmetrical blocks of cabinet each 8 feet 4 inches by 5 feet 6 inches in size. Each of these 4 blocks contains 148 slides each bearing 8 individual mounts on which the postage stamps are installed. In addition to these slides 2 short sections of cabinet 6 feet long are installed, each containing 51 frames. Thus the entire series of cabinets now contains 694 slides and 5,552 mounts, which will accommodate about 100,000 postage stamps. A series of eight frames with swinging doors was installed for stamps of special temporary interest.

The condition of the historical storage collections was much improved by the transfer of the military and other historical materials

from 4 rooms on the second floor of the northeast tower to 3 rooms on the southwest tower. The rearranging of this material is now in progress.

INVESTIGATION AND RESEARCH

The members of the staff accomplished important research in every phase of the division's work, the results of which will ultimately appear in the form of labels and publications. Many requests for information concerning historical museum work were received from individuals, other museums, and other departments of the Government.

DISTRIBUTION AND EXCHANGE OF SPECIMENS

A total of 201 specimens were returned to their owners during the year and 52 were lent for study or display.

NUMBER OF SPECIMENS UNDER DIVISION

Art	4,611
Antiquarian	11,052
Costumes	4,169
Library	2,225
Military	27,555
Naval	2,519
Numismatic	46,385
Philatelic	397,193
Total	495,709

ACCESSIONS DURING THE FISCAL YEAR 1934–35

[EXCEPT WHEN OTHERWISE INDICATED THE SPECIMENS WERE PRESENTED, OR WERE TRANSFERRED IN ACCORDANCE WITH LAW BY BUREAUS OF THE GOVERNMENT]

ABBOTT, W. C., Rosebank, Cape Province, South Africa: Stone implements and rejectage from 2 localities in South Africa (128495, 134685).

ABRAHAM, STUART, Alexandria, Va.: 6 fishes from Camp Roosevelt, Chesapeake Bay, Md. (130604); 335 fishes and 2 insects from Cameron Run and Accotink Creek, near Alexandria (134027, 134805); 375 fishes from the James, Roanoke, and Appomattox River drainages of Virginia and 43 insects, 1 salamander, 1 mollusk, and some crustaceans (134438).

ACADEMIA ASIATICA, Teheran, Iran: Collection of fossil plants and invertebrates from Iran (130582).

ACADEMY OF NATURAL SCIENCES, Philadelphia, Pa.: 125 plants from eastern North America (130278); 5 flies (130330, exchange); 2 birds (131943, 132975, exchange); (through Dr. H. A. Pilsbry) 52 mollusks, representing paratypes of 18 species (132479).

ACHSTETTER, P. F., Washington, D. C.: An early Williams typewriter (131831).

ACHSTETTER, R. J., Washington, D. C.: An early Edison 6-volt electric fan (131550).

ADAIR, FRANK, Atlanta, Ga.: 1 mounted albinistic pintail hen (133144).

ADAMSON, JACK, Portland, Oreg.: 3 glass fish-net floats that drifted from Japan to the coast of Oregon (132222); specimen of fungus from Oregon (133601).

AELLEN, Prof. PAUL, Basel, Switzerland: 325 plants mainly from Corsica and Switzerland (133639, exchange).

AGERSBORG, Dr. H. P. K., Washington, D. C.: 3 sponges, 2 corals, and a section of piling honeycombed by *Teredo* (131546); 8 mollusks from Friday Harbor, Wash. (131604); 2 dry sponges from Myrtle Beach, S. C. (131842); 7 specimens of Serpula limestone from South Carolina (131922); about 30,000 mollusks, chiefly from Europe (133430); 1 watersnake from Pickett Forest, Tenn. (134487).

AGRICULTURE, U. S. DEPARTMENT OF:

Bureau of Animal Industry: 1 skink from Cantonment, Fla., collected by E. M. Nighbert (131422); 185 fresh-water shells from Utah (134048).

Bureau of Biological Survey: 1 eastern ground dove (133067); 12 bird skeletons (133974); 98 mammals (134822); (through T. D. Burleigh) 1 nest and 5 eggs of raven from northern Georgia (131181); (through Neil Hotchkiss) 1 plant from Washington (131757); (through W. C. Henderson) 2 vials of insects from North Dakota (131947); (through S. G. Jewett) 1 trunk skeleton of frigate bird (133543); (through Homer R. Dill) 1 albatross (134170); (through J. M. Hill, Jr.) 5 white-necked ravens (134964).

Bureau of Entomology and Plant Quarantine: 29 mollusks from Italy, Mexico, Cuba, and Central America and 6 isopods (129999, 130301); 10 land shells from Central and South America, West Indies, and Australia and 7 isopods (130385); 84 isopods, 1 *Gordius* (?) worm, 63 mollusks, 3 earthworms, 1 amphipod, 4 oligochaete worms, 5 lizards (130462, 130882, 131053, 131162, 131359, 131402, 131847, 132408, 132487, 132741, 133058, 133526, 134059, 134812); 6 mollusks and 2 isopods from Cuba and 2 fresh-water worms (130883); 3 isopods from Guatemala and Honduras and 6 mollusks from Honduras and Mexico (131573); 9 isopods from the Philippines and 3 mollusks from Honduras (131584); 86 leafhoppers (41 species, of which 27 are new to Museum) (132730); 2 snails from Ireland and Cuba and 2 isopods (133789); 1 isopod and 6 mollusks from Central America (133869); 11 mollusks from Central America and Germany and 4 isopods (134619); 2 isopods, 2 earthworms (young), 6 mollusks, 1 lizard (132155); 16 mollusks and 1 isopod (134838); 16 mollusks, 1 salamander, and 10 isopods

(134403); 47,000 miscellaneous insects retained from collections received during the year for identification (135005); (through Peter Bisset) 1 cultivated plant (133533); (through C. W. Collins) 12 flies (5 species) (114102); (through Dr. F. C. Bishopp) 1 aquatic plant from Gatun Lake (132190); (through L. B. Parker) 18 Hymenoptera (3 species, types, allotypes, or paratypes) (131868); (through R. G. Pierce) 4 plants from Georgia and Tennessee (130300).

Bureau of Plant Industry: 2,680 specimens of cultivated varieties of wheat and 5 standard herbarium cases (130394); 14 agricultural and household implements used by Chinese farmers and 1 pruning hook from Japan collected by the explorers P. H. Dorsett, 1924 to 1929, and Frank N. Meyer, 1917 (133592); 3 woods collected in National Arboretum by O. M. Freeman, 1935 (134788); (through Dr. S. F. Blake) 8 photographs of type specimens of plants, 1 plant from Utah, 1 fern from Tennessee, and 1 type specimen of plant from Lower California (130530, 133586, 134243, 134630); (through Amelia Bumhart) 1 plant from Jamaica (130432); (through Dr. F. V. Coville) 7 photographs of tree yuccas from California, 31 plants from California, 1 plant from Virginia, 18 plants from Wyoming and Utah, 13 plants from North Dakota, 30 plants, 23 plants from Western United States, 30 plants from Arizona, and 1 plant from Wisconsin (131214, 132181, 132314, 132446, 132447, 133131, 133587, 133800, 134074, 134083, 134387, 134461, 134789, 134820); (through L. H. Dewey) 1 plant from Hispaniola (134635); (through C. O. Erlanson) 1 plant from Texas (132699); (through Dr. A. S. Hitchcock) 3,275 grasses, 1 plant from Louisiana, 1 plant from Africa, 1 fern from Brazil (130431, 130475, 132517, 133957, 134045); (through Dr. T. H. Kearney) 2,088 plants from Arizona, 1 plant from Texas, 1 plant from Argentina, and 8 plants from Argentina and Arizona (130196, 132329, 132342, 132394, 132444, 132726, 133020, 133130, 133577, 134459, 134818); (through B. Y. Morrison) 208 plants from Chile and West Indies, 63 plants collected in West Africa by Dr. David Fairchild in 1926 and 1927, 300 plants collected chiefly in West Africa by Dr. Fairchild in 1926 and 1927, 465 plants collected in Mongolia by Joel Eriksson (132091, 132396, 133959, 134786); (through R. H. Peebles) 3 plants from Arizona (134462, 134631); (through P. L. Ricker) 1 plant from Virginia (132315); (through Paul Russell) 1 orchid from Puerto Rico, 9 plants, and 2 plants from Saba Island (130473, 132472, 134050); (through J. A. Stevenson) 356 plants mainly from the United States (130625); (through J. R. Swallen) 75 plants (134632).

AGUAYO, Dr. C. G., Habana, Cuba: 19 land shells (paratypes and topotypes) from Cuba (130453).

ALDERMAN, A. L., Berkeley, Calif.: 4 amphipods from San Mateo County, Calif. (130209).

ALEXANDER, Dr. C. P., Amherst, Mass.: 40 flies (134966).

ALFARO, Prof. A., San Jose, Costa Rica: 1 plant from Costa Rica (131223).

ALLAIRE, WOODWARD & Co., Peoria, Ill.: (Through N. J. Busch) 1 specimen each of Cape aloe and spearmint leaves for materia medica collection (131600).

ALLARD, H. A., Clarendon, Va.: 225 miscellaneous insects collected by donor in mountains of Virginia (129993).

ALLEN, A. R., Trinidad, Colo.: 1 photograph of meteor train of the Pasamonte meteorite, March 24, 1933 (132758).

ALLEN, Capt. H. T., Washington, D. C.: Ethnological specimens collected by donor in Philippines (130430).

ALT, A. W., Brushy Run, W. Va.: 1 big-eared bat (134493).

ALUMINUM CO. OF AMERICA, Edgewater, N. J.: Collection of various examples of fastening devices used in the assembly of aircraft and made of light metal alloys (130513).

ALVARADO, J., Joaquin, Honduras: Collection of Cretaceous invertebrate fossils from Honduras (134583).

AMERICAN BEMBERG CORPORATION, New York City: Specimen of light blue reverse crepe made from Bemberg rayon for use as a background in exhibit of synthetic fibers (131167).

AMERICAN MUSEUM OF NATURAL HISTORY, New York City: Casts of 3 fossil proboscidian teeth (130596, exchange); 4 small mammal skins

with skulls (132989, exchange); 3 casts of *Dryopithecus* type specimens (133069).

AMERICAN NUMISMATIC ASSOCIATION, New York City: 10 specimens of coins of Abyssinia, Colombia, Germany, Iraq, Manchukuo, and New Zealand, struck 1933–34 (130534, loan).

AMERICAN OSTEOPATHIC ASSOCIATION, Chicago, Ill.: 2 books—"Applied Anatomy" and "Diseases of Women"—by M. E. Clark (130318).

AMERICAN SOCIETY FOR THE CONTROL OF CANCER, New York City: Strip of film entitled "Public Enemy No. 1—Cancer" for use in delineascope to supplement cancer exhibit (131544).

AMERICAN TELEPHONE & TELEGRAPH Co., New York City: (Through W. S. Gifford) Microphone transmitter and single receiver used by Mr. Gifford in the around-the-world two-way telephone conversation, April 25, 1935 (134599).

AMERICAN UNIVERSITY, Washington, D. C.: The John Peate Telescope Reflector, a 60-inch glass disk cast and ground about 1893 (131394, loan).

AMORTEGUI, Dr. B. G., Bogota, Colombia: 15 plants, 98 amphibians, 6 reptiles, 1 lot of tadpoles, 1 lizard, and 186 insects from Colombia (129583, 130170, 130637, 131239, 132513).

ANDERSON, C. S., Harrisburg, Pa.: 4 flies (133046).

ANDERSON, W., College Park, Md.: 3 beetle larvae (131827).

ANDREWS, J. H., Cherrydale, Va.: Pictorial model of the 7-masted schooner *Thomas W. Lawson* mounted in a seascape within a glass case (132196, loan).

ANDREWS, Dr. MARY N. (See under Henry Lester Institute of Medical Research.)

ANSLEM, Brother. (See under Commercial Academy.)

APOLLINAIRE-MARIE, Rev. Brother, Bogota, Colombia: 60 plants from Colombia (134492, 134917).

APPLEGATE, Dr. E. I., Stanford University, Calif.: 24 plants (134385).

ARCHAEOLOGICAL SOCIETY OF WASHINGTON, D. C.: Archeological material from the Mugharet et-Tabun (Cave of the Oven), near Athlit, Palestine, collected by the 1933 joint expedition of the American School of Prehistoric Research and the British School of Archeology in Palestine (132332, deposit).

ARIZONA, AGRICULTURAL EXPERIMENT STATION OF UNIVERSITY OF, Tucson, Ariz.: 38 ferns from Arizona (131903, exchange).

ARKANSAS, UNIVERSITY OF, Fayetteville, Ark.: 189 plants from Arkansas (130197); (through Dr. W. J. Baerg) 1 spider from Mexico (133851); (through Prof. D. M. Moore) 30 plants from Arkansas (130040).

ARMOUR & Co., Chicago, Ill.: Poster map, 1911, showing first transcontinental flight made by Calbraith Rodgers (133260).

ARMOUR SOAP WORKS, Chicago, Ill.: 8 types of soap and cleansing powders (131919).

ARSÈNE, Rev. Brother, Santa Fe, N. Mex.: 567 plants from New Mexico (132384, 134824).

ARTSCHWAGER, RICHARD, Washington, D. C.: 1 wasp net (132136).

ARTZ, LENA B., Clarendon, Va.: 27 plants from Virginia (130584, 131213, 132078, 134590).

ASCHEMEIER, C. R., Washington, D. C.: 2 birds (133588); 247 fishes from Lake Ovington, Md. (134709). (See also under Smithsonian Institution, National Museum.)

ASHLEY, C. P., Kingston, N. Y.: Pair of wicker tonneau baskets to fit early Cadillac automobile (132348).

ASHTON, M. DORSEY, Washington, D. C.: An 18th century English machine-turned-and-polished lignum-vitae mortar and pestle (132460, deposit).

ASSOCIATED TELEPHONE CAMERA CLUBS, Washington, D. C.: 50 pictorial prints shown during March (133554, loan).

AUDANT, ANDRE, Port-au-Prince, Haiti: 1 lizard and 5 frogs from Peak La Selle, Haiti (131846).

AUMANN, Mrs. L. L., Washington, D. C.: 7 items of American costume used during 19th century (130889).

BAERG, Dr. W. J. (See under University of Arkansas.)

BAHRT, Mrs. G. M., Orlando, Fla.: 1 fresh-water bryozoan (131022).

BAILEY, E. W. (See under Dr. G. S. Myers.)

BAILEY, F. S., St. Paul, Minn.: 15 mollusks from Hidden Lake, Isle Royale, Lake Superior (131608).

BAILEY, PROF. L. H., Ithaca, N. Y.: 78 plants from Venezuela and 1 plant from Trinidad (130904, 132214; exchange).

BAILEY, VERNON, Washington, D. C.: Blackfoot Indian skull found in grave on hill near Blackfoot, Mont., September 1894 (130195); collection of potsherds, projectile points, etc., collected by donor and Mrs. Bailey in various western States in 1906 and subsequently (130409); 1 opossum (131950); 3 birds (134025); 5 eggs of Canada goose (134248).

BAKELITE CORPORATION, Bound Brook, N. J.: Series of specimens, including installation fixtures, illustrating manufacture of bakelite and its products (134826).

BAKER & Co., INC., Newark, N. J.: 6 specimens of spinnerettes used in manufacture of synthetic fibers, including a small illuminated display case (133846).

BAKER, Prof. A. W. (See under Ontario Agricultural College.)

BAKER, Mrs. MARY F., Winter Park, Fla.: 10 plants from Florida (129324, 130635).

BALDINGER, Maj. O. M., West Haven, Conn.: Doll costumes, chinaware. and miscellaneous objects of domestic interest (132493).

BALDWIN, ESTATE OF EVELYN B., Washington, D. C.: (Through E. E. Rogers) 23 lantern slides showing Arctic scenes and 2 maps of polar regions, from the effects of the late Evelyn B. Baldwin (132776).

BALL, Dr. C. R., Berkeley, Calif.: 2 grasses from California (130474).

BALL, W. H., Washington, D. C.: 90 amphipods, 26 isopods, 1 copepod, and 6 crayfishes (130181, 134033, 134095, 134771); collection of marine life from Bogue Sound, N. C., comprising 2 alcyonarians, 2 bryozoans, 9 barnacles, 9 hermit crabs, 12 crabs, 8 isopods, 4 shrimps, fishes, insects, reptiles, 1 mollusk (131856); 2 sponges from Point Lookout, Md. (132066); 17 amphipods and 2 isopods from Virginia ponds and brooks (132461); 1 red-tailed hawk (134080); 1 woodchuck from Langley, Va. (134088).

BANDY, M. C., Redfield, Iowa: 59 fossil brachiopods and corals from Jurassic of Chile (130483).

BARBER, H. G. (See under C. A. Frost.)

BARBER, H. S., Washington, D. C.: 4 mollusks from Smith Island, Cape Fear, N. C. (131027); 2 snakes and 1 frog from North Carolina (131436); 1 plant from Great Falls, Va. (134898).

BARKALOW, F. S., Jr., Marietta, Ga.: 7 mammal skins from Georgia (130892).

BARKER, A. W., Hingham Center, Mass.: (Through Mrs. Charles Whitmore) 51 lithographs by donor for exhibition October 8 to November 4, 1934 (131217); (through Mrs. Charles Whitmore) 4 lithographs by donor—"Above the Valley", "Hooping the Wheel", "October Cornfield", and "Pennsylvania Glen" (131928).

BARKER, ETHEL D., Upland, Calif.: 1 ambrotype transparency (134834, loan).

BARNES, A. C., Washington, D. C.: 1 weasel (134967).

BARNES, A. D., Grants Pass, Oreg.: 1 specimen of kinradite from near Grants Pass (132130).

BARNES, Dr. and Mrs. G. S., Cortez, Fla.: 106 marine shells from Anna Maria Key, Manatee County, Fla. (131432).

BARNES, R. M., Lacon, Ill.: 8 Lepidoptera (133613).

BARRET, Dr. H. P., Charlotte, N. C.: 1 sample each of blue hyalite and uraninite and 2 of torbernite from North Carolina (130379, 130557, 133539).

BARRETO, Dr. MELLO, Bello Horizonte, Minas Geraes, Brazil: 8 birds (134974).

BARTLETT, Prof. H. H. (See under University of Michigan.)

BARTRAM, E. B., Bushkill, Pa.: 139 mosses from Costa Rica (131350, 134895; exchange).

BARTSCH, Dr. PAUL, Washington, D. C.: 1,300 mollusks and a collection of fishes, reptiles, and insects from Virginia (130406, 130471, 130509); 42 fishes, 1 snake, and 2 mammals from Maryland (130549, 131952); 38 birds (131575, 132777). (See also under Smithsonian Institution, National Museum.)

BARWICK, Dr. A. R. (See under Catholic University of America.)

BAUMGARTNER, F. M. (See under A. Marguerite Heydweiller.)

BAUSCH & LOMB OPTICAL CO. Rochester, N. Y.: Collection of 124 ophthalmic lenses and 36 pictures to illustrate history of eyeglasses (132676).

BEACH, W. N., New York City: 142 birds (133610).

BEAL, GIFFORD, New York City: 28 etchings (drypoints), 2 lithographs, 16 water colors, 4 drawings (132124, loan).

BEAL, J. L., Gastonia, N. C.: 2 specimens of pyrrhotite from North Carolina (131056).

BEAR, S. Z., New Haven, Conn.: An audiotron vacuum-tube radio detector (131051).

BEATTY, H. A., St. Croix, Virgin Islands: 1 lot of crustaceans (133527).

BEDE, PAUL, Sfax, Tunis: About 1,600 Cretaceous and Tertiary invertebrate fossils from France, Tunis, and India (131043).

BEETLE, C. D., New Bedford, Mass., and CHANNING, W. E., Fairhaven, Mass.: 2 sheets of plans of the Beetle whaleboat in which the lines are taken from the original molds (130366).

BEHNING, Prof. A. L. (See under Zoological Institute Academy of Science.)

BEIR, ARTHUR, & Co., INC., New York City: 1 specimen of rayon satin for exhibit illustrating manufacture of viscose rayon (131606).

BEISTLE, M. L., Shippensburg, Pa.: 2 limonite concretions from Boiling Springs, Pa. (130294).

BELL, E. L., Flushing, N. Y.: (Through Dr. W. Schaus) 11 Lepidoptera (131405).

BELL, Hon. F. T., Washington, D. C.: 1 osprey (131347).

BELL, GEORGE, London, England: 26 prints, 1 plate finished, 1 plate stopped out ready for etching, 1 plate developed, 1 negative ready to print, 1 negative, 1 original (a photograph of an engraving), and 7 steps in making of a rotary intaglio photogravure (131061).

BELL TELEPHONE LABORATORIES, New York City: 59 specimens of motion-picture apparatus, sound on film, cameras and projectors, and 14 portfolios covering history of pioneer work in sound on film and related motion-picture development by E. A. Lauste and others (129430).

BENEDICT, Mrs. J. E., Silver Spring, Md.: 1 tintype of Elizabeth Morrison, about 1850 (132768).

BENEDICT, J. E., JR., Washington, D. C.: 1 crab from Epping Forest, Severn River, Md. (130422).

BENESH, BERNHARD, North Chicago, Ill.: 60 beetles (131586, 132748); 68 Hymenoptera, reared from caterpillars, with the shells of the hosts (132729); 226 beetles and 1 hemipteron (131746, 131183, 133844, 134808; exchange).

BENNETT, G. R. (See under Edith S. Clark.)

BENSON, Mrs. M. B., and HUNT, ESTHER, Baltimore, Md.: 1 megalethoscope and 15 photographic views (130487).

BERGDOLT, Dr. E. (See under Botanisches Institut.)

BERNARD, FERNANDO, Habana, Cuba: 8 alcyonarians, 1 fish, 1 snake, 27 sponges, and a specimen of coral from Cuba (128006).

BERRY, HENRY, Tracy, Minn.: 1 fossil horse's tooth from Lake Chetek, Minn. (131202).

BEST, MARJORIE S., and HELLMER, ISABELLA M., Bryn Mawr, Pa.: (Through Prof. A. L. Dryden) Major portion of a skull and 2 periotic bones of a porpoise from Choptank formation of Calvert Beach, Md. (134020).

BETHLEHEM SHIPBUILDING CORPORATION, LTD., Quincy, Mass.: 2 plating models of modern fishing trawlers, 1928 and 1929–34, respectively (134558).

BING, J. M., New York City: 155 pictorial photographs representing the American group exhibited at the Royal Photographic Society Exhibition in London, December 1934 (134633, loan).

BIRKHOLZ, CLIFFORD, Battle Creek, Mich.: 1 beetle, 2 marine shells, about 25 amphipods, 6 insects, 1 crab, and 1 hippa (130047, 130896).

BISHOP, Dr. S. C., Rochester, N. Y.: Type of a new salamander from near Portland, Oreg. (131435).

BISHOP MUSEUM, BERNICE P., Honolulu, Hawaii: (Through E. H. Bryan, Jr.) 347 plants from Hawaiian Islands (131577, 131887, exchange); 244 flowering plants from Samoa (133089, exchange).

BISHOPP, Dr. F. C. (See under U. S. Department of Agriculture, Bureau of Entomology and Plant Quarantine.)

BISSETT, PETER. (See under U. S. Department of Agriculture, Bureau of Entomology and Plant Quarantine.)

BLACK, RALEIGH, Mont Albert, Victoria: 6 plants from Australia (131708, exchange).

BLAIR, W. F., Gainesville, Fla.: 6 insects (132096).

BLAISDELL, Mrs. GRACE C. (See under U. S. Department of the Interior, Welfare Committee.)

BLAKE, Dr. I. H., Lincoln, Nebr.: 5 amphipods, 4 phyllopods, 4 freshwater copepods, and 1 leech (132496).

BLAKE, Dr. S. F., Clarendon, Va.: 14 plants from the United States

(130531, exchange); 8 plants from Argentina (130617); 6 phyllopods from Mono Lake, Calif. (130634); 15 plants from Africa (130963, exchange); 1 mollusk from Stoughton, Mass. (131836); fragment of fossil crab (134384); 5 specimens of fossil crabs (131837); fossil fish and crustaceans from Pleistocene at Wailes Bluff, Md. (134478). (See also under U. S. Department of Agriculture, Bureau of Plant Industry.)

BOEING AIRPLANE Co., Seattle, Wash.: Model, $\frac{1}{16}$ size, of the Boeing transport airplane, type 247–B, which, piloted by Turner and Pangborn, attained third place in the race from Mildenhall, England, to Melbourne, Australia, October 1934 (109278).

BOLIN, Dr. R. L., Pacific Grove, Calif.: 6 fishes collected at Point Lobos, Calif., by the donor (132129). (See also under Dr. Herbert Graham.)

BONSER, T. A., Spokane, Wash.: 1 plant from Washington (134639).

BORDEN, GRANVILLE. (See under Idaho Maryland Consolidated Mines, Inc.)

BORG, C. O., Hollywood, Calif.: 50 drypoints from special exhibit, November 15 to December 2, 1934 (131725, loan).

BOSTON NUMISMATIC SOCIETY, Boston, Mass.: (Through Shepherd Pond) Silver medal commemorating 75th anniversary of founding of the society (134872).

BOTANIC GARDENS, Singapore, Straits Settlements: 77 ferns from Borneo and Malaya (132482, exchange).

BOTANICAL INSTITUTE, Brno, Czechoslovakia: 100 plants from Czechoslovakia (130200, exchange).

BOTANICAL INSTITUTE, College of Agriculture, Canton, China: (Through Dr. W. Y. Chun) 1 plant from China (134272, exchange).

BOTANICAL INSTITUTE OF THE U. S. S. R. ACADEMY OF SCIENCES, Leningrad, U. S. S. R.: (Through Dr. V. P. Savicz) 193 plants from Brazil (130614, exchange).

BOTANISCHES INSTITUT, München, Germany: (Through Dr. E. Bergdolt) 24 plants (132108, exchange).

BOTANISCHES INSTITUT DER UNIVERSITAT, Heidelberg, Germany: (Through Dr. Hugo Gluck) 21 plants from Europe (134082, exchange).

BOTANISCHES MUSEUM, Berlin-Dahlem, Germany: 31 plants (fragments of types of species recently described by Dr. H. Sleumer) (132476, exchange); 2 photographs and 7 fragmentary ferns from South America (132707, 133033; exchange); 7 plants (133958, exchange); (through Dr. R. Pilger) 825 plants, mainly from tropical America (130199, exchange).

BOTANISCHES MUSEUM, München, Germany: 4 plants from South America (132338, exchange).

BOWKER, H. F., Gonaives, Haiti: 24 postage stamps of the Chinese Treaty Ports issued 1894–97 (131540).

BOWLES, EDGAR, Baltimore, Md.: 4 lizards, 2 bats, and 750 insects from Mexico (130888); (through Dr. Julia Gardner) 2 lots of flint projectile points from northeastern Mexico (130918).

BOYD, T. B., San Marcos, Tex.: 1 insect (131021).

BOYDSTUN, G. M. (See under E. D. Reid.)

BOYER, R. L., Westport, Conn.: 51 drypoint etchings for exhibit January 28 to February 24, 1935 (132697, loan).

BRAECKLEIN, J. G., Kansas City, Mo.: Archeological material from Missouri, Arkansas, and Nebraska and a bison skull (130286, exchange).

BRAID, A. F., New York City: 1 synthetic ruby (132463).

BRAND, ALBERT, New York City: 1 trunk skeleton of the coral-billed nuthatch (130605).

BRAND, S. E., Canton, Miss.: (Through Dr. C. E. Burt) 4 soft-shelled turtles from Mississippi (131060).

BRANDT, Lt. Comdr. G. E., Norfolk, Va.: 2 crabs and 4 barnacles from Virginia Beach, Va. (131893).

BRASTOW, ANNA C., Washington, D. C.: China pitcher, silver teaspoon, silver tablespoon, silver seal, trencher spoon, mustard pot, salt cellar, pair of silver sugar tongs, and a brass taper owned during latter part of 18th century by Prudence Plympton Cornett Madey, of Wrentham, Mass.; 1 silver salt shaker, 1 silver pepper shaker, 2 silver shoe buckles, 1 pair of gold links, and 2 extra connecting wires for links (130417, 131186).

BRAUN, Dr. ANNETTE F., Cincinnati, Ohio: 22 Microlepidoptera (paratypes and other named specimens) (132197, 133068).

BREASTED, Dr. J. H. (See under University of Chicago.)

BREDER, C. M., Jr., New York City: 47 fishes collected by donor at Chub

Cay, Berry Islands, Bahamas, and not previously recorded from there (132720).

BRENNAN, Dr. J. M., Bellwood, Pa.: 3 flies (3 species) (130630, exchange).

BRENNER, RUTH M., New York City: 5 early American hand-woven fabrics and a piece of jacquard-weave silk ribbon showing portraits of 5 prominent Americans (131174).

BRERETON, ESTELLE J., Washington, D. C.: Concertina made about 1850 that belonged to donor's father, Charles Brereton (134626).

BRIDWELL, J. C., Washington, D. C.: 2 brachiopods (131915); 2 fly larvae (Rhagionidae) from near Benedict, Md. (132067).

BRIGHAM, Dr. E. M. (See under Kingman Memorial Museum of Natural History.)

BRIGHAM YOUNG UNIVERSITY, Provo, Utah: 21 bees (133039).

BRIGHT, JOHN, Pittsburgh, Pa.: 10 plants from California (133303).

BRINKMAN, A. H., Craigmyle, Alberta: 69 plants from Canada (134065).

BRISTOL, TENN., FIRST NATIONAL BANK OF: 3 specimens of scrip issued by Bristol Clearing House Association (126714).

BRISTOW, F. B., Salina, Kans.: 3 pictorial photographs (133429).

BRITISH GOVERNMENT:

British Library of Information, New York City: Museum and other publications of British Government, consisting of handbooks, guides, scholarly publications, pamphlets, reports, maps, color prints, postcards, photographs, posters, and plaster casts, in all about 5,280 specimens (130917, loan).

British Museum (Natural History), London, England: 3 Lepidoptera from Gulf of Guinea (130193); 14 insects (130313, 130314; exchange); 21 Mesozoic and Cenozoic corals and 1 species of Ordovician bryozoan (131013); 1 fish from Paraguay (132203, exchange); (through Dr. Isabella Gordon) 2 shrimps (132308, exchange); cast of a trilobite (132457); 273 beetles in 3 families (55 species; 23 paratypes) (132738); 14 casts of types and other specimens of European Paleozoic Edrioasteroidea (133564); 277 leafhoppers (133779, exchange); 10 birds (134858, exchange); (through W. E. China) 2 insects from Greenland and Iceland (131635); (through Dr. Anna B. Hastings) 42 species of recent Bryozoa from Australia, South Africa, etc. (132126).

Imperial Forestry Institute, Oxford, England: 196 plants from Africa and India (130207, 132395; exchange); (through Dr. J. B. Davy) 50 woody plants from West Tropical Africa (132114, exchange).

Imperial Institute of Entomology, London, England: 28 Hymenoptera (8 species—6 represented by 19 paratypes) (131851, exchange).

Royal Botanic Gardens, Kew, England: 49 plants from Africa (130964, exchange); 1 fern from Peru (130559, exchange); 613 plants collected in Mexico by G. B. Hinton (130969, 131819, 132151, 132717, 133126; exchange); 267 plants from Mexico and 4 from Alaska (134596, exchange); 160 plants from Mexico (134819, exchange); 58 plants (134916, exchange).

BRITTEN, P. W., Riverdale, Mich.: 3 incomplete skeletons of children found at Riverdale (130297).

BRONAUGH, C. B., Afton, Okla.: 4 fossil horse teeth from Oklahoma (134422).

BROOKS, G. L., Boston, Mass.: 4 helminths (1 new genus and 4 new species) (131363).

BROOKS, Dr. S. T., Pittsburgh, Pa.: 41 mollusks from Newfoundland (132174); 4 crayfishes from West Virginia and Pennsylvania (133045).

BROUN, MAURICE, Floral City, Fla.: 4 plants from Florida (133567).

BROWER, A. E., Bar Harbor, Maine: 20 Lepidoptera and 1 cocoon (7 species) (132512, exchange); 7 Lepidoptera (133133).

BROWN, CURTIS, San Diego, Calif.: 8 Lepidoptera (132882, exchange).

BROWN, Dr. R. W., Washington, D. C.: 2 isopods from Idaho (130984); 6 compound ascidians from Chesapeake Beach, Md. (132143); 113 invertebrate fossils from Devonian (Hamilton) of Pennsylvania (132509).

BRUCE HUGHES FUND, Smithsonian Institution: 3 terra-cotta inscribed cones from Ur of the Chaldees, Iraq (133972).

BRUNER, S. C., Santiago de las Vegas, Cuba: 16 beetles from Cuba (130438, exchange); 33 beetles from Cuba (130903, 131187, 131634, 134101).

BRUSH, CHARLES FRANCIS, 3d, New York City: 5 medals awarded to

Charles Francis Brush, 1st (1849–1929) for his outstanding achievements in the field of electricity and public service (129434, loan).

BRYAN, BARNABAS, Jr., New York City: Specimen of native copper from South America (130174).

BRYAN, E. H., Jr. (See under Bernice P. Bishop Museum.)

BRYAN, Maj. H. S., San Francisco, Calif.: Small lot of beads from Tomb 7, Monte Alban, Oaxaca, Mexico (133819).

BRYANT, Mrs. ALYS M., Washington, D. C.: Poster announcing an early flight made by donor in a Curtiss type airplane at Portland, Oreg., in 1913 (134993).

BUCHANAN, ROBY, Hawk, N. C.: 1 specimen of gummite from Spruce Pine, N. C. (130426).

BUCHER, W. F., Washington, D. C.: 1 mount of white-oak leaves framed in Italian oak bark and 1 white-oak panel on which are mounted acorns of some of the commercial white oaks (134970).

BUFFALO MUSEUM OF SCIENCE, Buffalo, N. Y.: 1 tick (130172).

BULLOCK, Dr. D. S., Angol, Chile: 1 leg bone from a domestic fowl (130325); 314 insects from Chile (130375); 10 spiders, 3 egg masses, and 17 parasites from Angol (133095); 1 set of eggs of Chilean snowy plover and 1 lot of mollusks (134961).

BUMHART, AMELIA. (See under U. S. Department of Agriculture, Bureau of Plant Industry.)

BUNNELL, THEORA J., Baltimore, Md.: Lamp, model of the bark *Golden Gate* (about 1865), and a painting of the ship *Neptune* in New York Harbor (130179).

BURBANK, E. A., San Francisco, Calif.: 1 halftone reproduction of a portrait, by donor, of Franklin D. Roosevelt (131168).

BURLEIGH, T. D. (See under U. S. Department of Agriculture, Bureau of Biological Survey.)

BURT, Dr. C. E., Winfield, Kans.: 1 shell of a water turtle (130985); 65 insects from Texas and Kansas (132766, 134718); collection of reptiles, crustaceans, fishes, mollusks, and insects made by donor and assistants in 1934 in Arkansas, Louisiana, Mississippi (129679) (collected for the Museum). (See also under Southwestern College, D. B. Whites, S. E. Brand, C. E. Young, and C. R. Rogers.)

BUSCH, N. J. (See under Allaire, Woodward & Co.)

BUSHNELL, D. I., Jr., Washington, D. C.: Archeological material from various sites in 3 counties of Virginia (134909). (See also under R. M. Kerr.)

BUSSART, J. E., Wheaton, Ill.: 1 insect (131629).

BUTTNER, RICHARD, New York City: 76 fishes of species recently imported for aquaria (131582); 34 fishes from Malayan region and South America (133806).

CABALLERO Y C., Prof. EDUARDO, Chapultepec, Mexico, D. F.: 4 nematodes (134796).

CADY, HARRISON, Brooklyn, N. Y.: 45 drawings by Mr. Cady for exhibition April 22 to May 19, 1935 (134026, loan).

CAESAR, Prof. L. (See under Ontario Agricultural College.)

CALIFORNIA ACADEMY OF SCIENCES, San Francisco, Calif.: 4 plants from California and Oregon (130908, exchange); 174 plants, mostly from California and Mexico (132065, exchange).

CALIFORNIA DEPARTMENT OF AGRICULTURE, Sacramento, Calif.: 28 insects (dissected specimens of 3 species and 25 slide mounts of mouth parts of weevils) (132940, exchange).

CALIFORNIA, UNIVERSITY OF, Berkeley, Calif.:

Department of Botany: 574 plants (130208, exchange); 1,528 plants collected in China by Dr. J. F. Rock (131924, exchange).

Museum of Vertebrate Zoology: 3 skins and 1 skeleton of the clapper rail (132770).

CALUMET & ARIZONA MINING CO., Bisbee, Ariz.: (Through W. P. Crawford) 5 specimens of hetearolite and 1 of chalcocite from Warren district, Ariz. (131305).

CAMERA CLUB, New York City: 60 pictorial prints, "Members' Show", for exhibition September 10 to 30, 1934 (131502, loan).

CAMMERER, A. B. (See under U. S. Department of the Interior, National Park Service.)

CAMPBELL, BERRY, Baltimore, Md.: 26 reptiles and amphibians, mostly from Crater Lake National Park, Oreg. (131839).

CAMPBELL, Mr. and Mrs. BERRY, Baltimore, Md.: 5 toads from Mount Conness and Mount Dana, Calif. (130452).

CAMPBELL, GUY, New Albany, Ind.: About 50 Devonian brachiopods from Indiana (130177).

CAMPOS R., Prof. F., Guayaquil, Ecuador: 29 flies from Ecuador (129955).

CANADIAN GOVERNMENT, Ottawa, Canada:

Department of Agriculture: 26 insects (130993, 133536; exchange); (through G. S. Walley) 1 insect (131693); 8 Hymenoptera (134981).

Geological Survey: 12 casts of invertebrate fossil types from Cambrian of Mackenzie River described by Dr. T. Kobayashi (130312); (through Dr. E. M. Kindle) 4 Upper Ordovician brachiopods from Levis, Quebec (132118, exchange).

CANAL ZONE EXPERIMENT GARDENS, Summit, Canal Zone: 8 plants from Panama (130202); 12 plants from Panama (131180).

CANFIELD FUND, Smithsonian Institution: 5 specimens (4 species) of minerals (129429); 1 specimen of gold ore (129808); 1 specimen of hiddenite (130273); 1 specimen of smithsonite and cerusite from Tsumeb (130275); 1 lot of mineral specimens (muscovite, gummite, and thulite) from Spruce Pine, N. C. (130407); 1 specimen of dioptase from French Congo (130520); 1 malachite psuedo after azurite from Ruth, Nev. (130553); 32 minerals from Germany (130594); 32 minerals from Utah and Colorado (131172); 2 mineral specimens from Italy (131940); 2 crystals of topaz from Devils Head, Colo. (131967); 4 Bolivian minerals (131981); 2 topaz crystals and 1 topaz crystal with smoky topaz and 2 small phenacite crystals (132206); 4 mineral specimens (132340); collection of Bisbee, Ariz., minerals (132353); 1 specimen of calcite and 1 of enargite (132514); 1 specimen of sphalerite from Joplin, Mo., and 1 of calcite from near Baxter Springs, Kans. (133088); 3 crystal groups of samarskite from Brazil and 1 bournonite and 1 wolframite from Rumania (133585); 22 minerals from Southwest Africa (133971); 1 specimen of stannite and 1 of wolframite with cassiterite (134090); 1 specimen of samarskite (134171); 1 specimen of gold in the matrix (134458); 1 specimen of torbernite and 1 of uraninite (134488); (in cooperation with Harvard University) a small collection of mineral specimens from Colorado, Utah, Arizona, and other western States collected by F. A. Gonyer (129524). (See also under Smithsonian Institution, National Museum.)

CARDENAS, Dr. M., Potosi, Bolivia: 77 plants from Bolivia (130481).

CARL, G. C., Nanaimo, British Columbia: 50 amphipods, 10 isopods, 15 copepods, 2 insects, and 3 mites (134798).

CARNEGIE INSTITUTION OF WASHINGTON, D. C.: 875 annelids (15 types) from plankton samples taken by the *Carnegie*, identified by Dr. A. L. Treadwell (130492); collection of mysids taken by the *Carnegie* and identified by Dr. W. M. Tattersall (132112); cast of the Quirigua Altar (132474).

CARNEGIE MUSEUM, Pittsburgh, Pa.: Skeleton of suropod dinosaur from Dinosaur National Monument, Utah (127486, exchange); 426 plants from Santa Marta, Colombia, collected by H. H. Smith (133578, exchange).

CARPENTER, MATHILDE, Washington, D. C.: 1 chimney swift (134779).

CARR, A. F., Gainesville, Fla.: 1 turtle (133553).

CARRION, Rev. CLODOVEO, Loja, Ecuador: Collection of fossil plants, insects, mollusks, echinoids, and fishes (131843).

CARROLL, GEORGE W., Co., Washington, D. C.: Head, tail, fins, and parts of skin of 400-pound sturgeon taken 100 miles off Cape Hatteras, N. C., by fishing vessel of Isaac Fass on December 17, 1934 (132398).

CARTER, W. H., Washington, D. C.: 2 tunafishes from Cape May, N. J., probably representing a new species (130393).

CARTWRIGHT, O. L., Clemson College, S. C.: 3 beetles (type and 2 paratypes of a new species) (129253); 2 beetles (132484).

CARTY, A. B., Washington, D. C.: 2 broadsides, 1 relief printing block and proof therefrom, 1 celluloid relief printing surface (133562).

CASE, R. E. (See under International Nickel Co.)

CATHOLIC UNIVERSITY OF AMERICA, Washington, D. C.: 188 plants from various sources (132990, exchange); (through Dr. A. R. Barwick) 1 mollusk from South America (133099).

CELANESE CORPORATION OF AMERICA, New York City: Specimen of Celanese taffeta, champagne color (130381); 15 Celanese fabrics in plain and novelty weaves (130434).

CELLULOID CORPORATION, Newark, N. J.: Series of 152 specimens demonstrating historical phases of celluloid industry (133593).

CHACE, Dr. F. A., Jr. (See under Harvard University, Museum of Comparative Zoology.)

CHAMBERLAIN FUND, FRANCES LEA, Smithsonian Institution: 1 aquamarine from Maine and 1 rhodolite garnet (130272); 6 mollusks (131012); 1 yellow sapphire (130194); about 500 mollusks from Virginia collected by Dr. J. P. E. Morrison (131834); 1 demantoid garnet (131966); 1 chrysoberyl from Ceylon and 1 green zircon (132149); 20 mollusks (132992); 13 mollusks from India and Ecuador (134862).

CHAMBERLIN, H. S., Washington, D. C.: First-day cover of the *Graf Zeppelin* European Pan American round-trip flight, 1930, and a United States unused 30-cent stamp of the 1922–26 issue showing double transfer (131541).

CHAMPLAIN, A. B., Harrisburg, Pa.: 2 flies (133047).

CHANCE VOUGHT CORPORATION, East Hartford, Conn.: Model, $\frac{1}{16}$ size, of the Dayton-Wright R–B monoplane entered in the Gordon Bennett race, 1920 (131832).

CHANDLER, Dr. A. C., Houston, Tex.: 3 parasitic copepods (134257).

CHANDLER, R. H., Abbey Wood, England: (Through Mary S. Johnston) Paleolithic implements from chalk pits at Swanscombe, Kent, England (134861).

CHANNING, W. E. (See under C. D. Beetle.)

CHAPIN, LUCY C., Washington, D. C.: 9 fresh-water shells from Lake Garfield, Monterey, Mass. (132467).

CHAPMAN, ARTHUR, and DELACY, ALLAN, Seattle, Wash.: (Through Dr. L. P. Shultz) 1 fish (paratype of a new species) from Petersburg, Alaska (130626).

CHAPMAN, F., Melbourne, Victoria: 8 samples of washings with Tertiary Bryozoa from Australia (131728).

CHARLESTON MUSEUM, Charleston, S. C.: 14 echinoderms and 4 crayfishes (130048, exchange); 10 shrimps, 2 hydroids, 4 barnacles, and 500 amphipods (132978); (through G. R. Lunz, Jr.) 210 shrimps, 650 amphipods, 1 pycnogonid, 12 sponges, 1 bryozoan, and 1 mass of amphipod tubes (130421, 131397, 133586); collection of amphipods and 1 crab taken by T. B. Christiansen at Frying Pan Shoal, off coast of North Carolina (133318); 1 rare crustacean (131882); collection of Crustacea from Hector buoy, off Cape Romain, S. C. (133824).

CHEN, Y., Philadelphia, Pa.: 13 Chinese earthworms (paratypes of new species recently described by donor) (131545); (through G. E. Gates) 23 Chinese earthworms (132422).

CHICAGO, UNIVERSITY OF, Chicago, Ill.: *Oriental Institute:* (Through Dr. J. H. Breasted) Human skeletal material excavated chiefly from ancient tombs at Megiddo, Palestine (126711, permanent deposit).

CHINA, W. E. (See under British Museum of Natural History.)

CHIPMAN, W. A., Jr., Columbia, Mo.: 3 crustaceans (130591).

CHRYSLER, Prof. M. A. (See under Rutgers University.)

CHUN, Dr. W. Y. (See under Botanical Institute, Canton, China.)

CIBELE, ANGELA NARDO, Venezia, Italy: 44 sponges representing portions of specimens studied by Prof. G. D. Nardo (131079).

CIFERRI, E., Santiago, Dominican Republic: 2 sets (4 specimens) of birds' eggs (134791).

CINCINNATI, SOCIETY OF THE, Washington, D. C.: (Through Maj. E. E. Hume) Sevres vase presented to the society in 1903 by the French Government in recognition of the courtesies extended by the society to the French Mission to the United States on the occasion of the unveiling of the Rochambeau statue in Washington in 1902 (134282, deposit).

CLARK, A. H., Washington, D. C.: 1 plant from Maryland (130801). (See also under Smithsonian Institution, National Museum.)

CLARK, Dr. B. P., Boston, Mass.: 175 moths from Lima, Peru (130558).

CLARK, EDITH S., Toledo, Ohio: (Through G. R. Bennett) Steel plate used during Civil War for printing reverse side of Confederate $10 bills and 6 prints made from the plate, formerly owned by donor's father, Brig. Gen. Charles E. Smith (127154).

CLARK, MARTHA L., Chase City, Va.: 6 crayfishes, 16 isopods, 14 am-

phipods, 6 copepods, 200 ostracods and cladocerans, insect larvae, and 1 snake (133823, 134408).

CLARKE, J. F. G., Pullman, Wash.: 62 moths (12 being types and paratypes of new species) (132760, 134017).

CLAUSE, E. A., Providence, R. I.: 1 book, example of fine printing, "The Story of the Vollbehr Collection of Incunabula", by Frederick W. Ashley (132399).

CLEARWATER (FLA.) CHAMBER OF COMMERCE AND ST. PETERSBURG (FLA.) CHAMBER OF COMMERCE: (Through W. W. Tison) Radio telephone broadcasting equipment (1922), consisting of a 500-watt transmitter, power switchboard motor-generator set, and miscellaneous equipment such as microphones, earphones, receivers, and antennae (132624, loan).

CLEMSON COLLEGE, Clemson College, S. C.: 8 flies (type and 7 paratypes of 4 species) (131867).

CLEVELAND WELDING CO., Cleveland, Ohio: (Through B. F. Goodrich Rubber Co.) Series of 32 chromium-plated cross sections of wheel rims for bicycles, motorcycles, airplanes, passenger automobiles, and trucks, showing historical development of wheel rims for mounting rubber tires (130382).

CLINE, L. M., Iowa City, Iowa: 400 brachiopods from Mississippian and Pennsylvanian strata of Oklahoma, Iowa, Missouri, and Arkansas (131960).

CLINTON, H. G., Manhattan, Nev.: Specimen of gold ore from Tonopah, Nev. (131159); specimen containing tridymite from near Stone House Spring, 5 miles south of Round Mountain, Nye County, Nev. (132439).

CLOKEY, I. W., South Pasadena, Calif.: 365 plants from California (132762, exchange).

CLORE, J. A., Washington, D. C.: An early model radio broadcast receiver, Crosley model VI (133565).

CLOUD, P. E., Waynesboro, Pa.: Exhibition slab of Lower Cambrian quartzite pierced by *Scolithus* tubes (130310); 1 garnet-bearing schist, 1 tourmaline bearing schist, and 1 specimen of muscovite, from the Kensington mica mine, Montgomery County, Md. (131727). (See also under Smithsonian Institution, National Museum.)

CLOVER, ELZADA N., Ann Arbor, Mich.: 60 plants from Texas (132488).

COCHRAN, Dr. DORIS M., Washington, D. C.: Specimen of white-throated sparrow from District of Columbia (131434). (See also under Smithsonian Institution, National Museum.)

COCHRAN, H. D., Omaha, Nebr.: (Through W. L. Hart) 1 polished seed of fossil fern (130543).

COCKERELL, Prof. T. D. A., Boulder, Colo.: 9 Hymenoptera (9 named species of *Halictus* and *Paracolletes;* 5 cotypes) (130915, exchange); 49 bees (131047).

COE, Mrs. H. C., Washington, D. C.: 1 sampler of map of England and Wales by P. Naudin and 19 early American, English, and French samplers portraying—with many types of stitchery on linen, wool, and cotton materials—human figures, beasts and birds, flowers, fruits, leaves, inscriptions, and lettering, as evidence of feminine accomplishment in decorative needlework (134044, loan).

COLES, Mrs. C. B., Picher, Okla.: 2 specimens of marcasite from mines near Picher (134883).

COLLINS, C. W. (See under U. S. Department of Agriculture, Bureau of Entomology and Plant Quarantine.)

COLLINS, Mrs. EMILY J., Bangkok, Siam: (Through Dr. H. M. Smith) 1,315 plants from Siam (132695).

COLLINS, H. B. (See under L. E. Long.)

COLLOM, Mrs. ROSE E., Payson, Ariz.: 48 plants from Arizona (130171, 131848).

COLOM, Dr. J. L. (See under Pan American Union.)

COLOMBO MUSEUM, Colombo, Ceylon: (Through A. H. Malpas) 2 reptile skulls from Gulf of Manaar (132-069, exchange).

COLORADO COLLEGE, Colorado Springs, Colo.: (Through Prof. C. W. T. Penland) 24 plants from southern Colorado (134167, exchange.)

COMMERCE, U. S. DEPARTMENT OF:

Bureau of Fisheries: Collection of marine invertebrates taken by the *Albatross* (131227); 41 fishes and 23 shrimps from Lake Mattamuskeet, N. C., and 1,094 miscellaneous deep-sea fishes collected by the *Grampus* (134687); (through Dr. S. F. Hildebrand) 1 bottle of earthworms from Canal Zone (5 specimens) (133627); (through M. J. Lindner) 1 shrimp (126835); 19 shrimps from Florida (131935); (through Fred Orsinger) 1 large

sturgeon from Lake Winnebago, Wis., collected by Wisconsin Fish and Game Commission (132178).

Bureau of Foreign and Domestic Commerce: Greek silver 10- and 20-drachma pieces struck in 1930 (132156).

Coast and Geodetic Survey: 337 marine bottom samples from the Atlantic and Pacific regions taken by Survey's vessels *Discoverer, Guide, Lydonia, Pioneer,* and *Sialia* (134452.)

COMMERCIAL ACADEMY, Quebec, Quebec: (Through Brother Anslem) 21 beetles (130167); 40 miscellaneous insects (130186).

COMMERCIAL SOLVENTS CORPORATION, New York City: Series of 35 bottled specimens (the liquids simulated by colored distilled water) illustrating stages in manufacture of butyl, ethyl, and methyl alcohols and of acetone, by fermentation, distillation, and synthesis, from corn; also 3 circular charts with photographs showing applications of these solvents and their derivatives (132198).

CONSOLIDATED AIRCRAFT CORPORATION, Buffalo, N. Y.: Model, $\frac{1}{8}$ size, of the *P–2–Y–1,* U. S. Navy Patrol seaplane, the type that made the present world-record nonstop flight in formation, San Francisco to Hawaii, January 10–11, 1934 (128345).

CONYERS, RAYMOND, New Harmony, Ind.: 1 least short-tailed shrew from New Harmony (132184).

COOKE, DR. C. WYTHE, Washington, D. C.: 19 mollusks from Choctaw County, Ala. (133631); 215 land shells (10 species) from Alabama (133843). (See also under C. L. Harris.)

COOPER, Dr. G. A. (See under Smithsonian Institution, National Museum.)

COOPER, VIOLA L., Washington, D. C.: Spear, bow, and 3 arrows brought from Fiji Islands in 1926 (131210).

COTTINGHAM, H. P., Medaryville, Ind.: 1 least weasel from Pulaski County, Ind. (130651).

COTTON-TEXTILE INSTITUTE, INC., New York City: 32 cotton fabrics produced by American manufacturers for fall and winter of 1934 (131038); 38 cotton textiles produced by American manufacturers for spring and summer of 1935 (133535).

COVILLE, Dr. F. V., Washington, D. C.: 3 plants from Plummers Island, Md. (134386). (See also under U. S. Department of Agriculture, Bureau of Plant Industry.)

COX, IAN, Cambridge, England: 6 metatypes of a graptolite from Richmond limestone of Akpatok Island, Canada (131771).

COXEN, H. J., East Falls Church, Va.: 1 rose-breasted grosbeak (134441).

COXEY, W. J., Haddonfield, N. J.: (Through Dr. W. Schaus) 3 Lepidoptera (131046).

CRAIGHEAD, FRANK and JOHN, Washington, D. C.: 1 embryo of the duck hawk (129908).

CRAMER, J. G., Easton, Pa.: (Through Mrs. J. G. Cramer) Gold key, silver fork, miniature gold spike, pair of gloves, and uniform coat owned by Gen. U. S. Grant and a brooch containing a lock of his hair (134018).

CRAMER, W. S., Harrisburg, Pa.: 1 Muhlenberg's turtle from New Providence, Pa. (130480); 1 skull of Muhlenberg's turtle from New Providence (131183); 2 Muhlenberg's turtles (134670).

CRAWFORD, W. P., Bisbee, Ariz.: 3 specimens of plumbiferous hetearolite from Arizona (131826). (See also under Calumet & Arizona Mining Co.)

CREASER, Dr. E. P., Elkins, W. Va.: 25 amphipods from Cheat River, W. Va. (130493); 1 blue crayfish (130895); 5 crayfishes (130968); 2 crayfishes from Rockbridge County, Va., and 1 lot of isopods from Augusta County, Va. (131-939); 50 phyllopods, 4 amphipods, 12 ostracods, 15 cladocerans, 5 isopods, insect larvae, and mollusks (134394); 50 amphipods and 20 isopods from caves in California and Oregon (134706).

CRISSEY, MABEL E., Washington, D. C.: Archeological, ethnological, and historical objects (130526). (See also under Florence C. Morse.)

CUNNINGHAM, J. H., Westminster, Md.: Jointed wooden snake made by Reuben Cassell, of Westminster, before 1860 (131871).

DAHLGREEN, C. W., Oak Park, Ill.: 50 etchings for exhibition January 2–27, 1935 (132199, loan); 1 drypoint, "The Dunes" (132778).

DALY FUND, Smithsonian Institution: 1 bird (131753).

DAMMERS, Commander C. M., Riverside, Calif.: 347 miscellaneous insects (131747, 132371).

DANFORTH, Dr. S. T., Mayaguez, Puerto Rico: 1 downy young of whippoorwill from Virginia (130391); 1 rail (130517, deposit); small collection of scale insects (133876).

DANIEL, Brother, Medellin, Columbia: 70 plants from Colombia (130571, exchange); 17 ferns from Colombia (132160).

DARBY, Dr. H. H., New Rochelle, N. Y.: Collection of Crustacea (28 shrimps, 5 crabs on which certain studies by donor were based, and 15 shrimps and crabs) (130802); 1 shrimp (133780); 1 crayfish and 5 amphipods (134715); 48 mollusks from Pelican Island, Bahamas (134832).

DARLINGTON, P. J. (See under Harvard University, Museum of Comparative Zoology.)

DAVIS, A. C., Takoma Park, Md.: 1 insect paratype (131595); 14 beetles (132071, 133552).

DAVIS, E. W., Salt Lake City, Utah: 8 leafhoppers (including holotype and allotype) (130428).

DAVIS, N. W., Ithaca, N. Y.: 2 rare insects (130315).

DAVIS, RICHARD, Jerico, Spanish Honduras: (Through Dr. W. D. Strong) Shoe-shaped monochrome vessel found by donor on United Fruit Co.'s Sico Farm in Rio Sico Valley, Spanish Honduras (133102).

DAVIS, R. F., Washington, D. C.: Specimen of hammerhead shark caught at Cape Lookout, N. C. (131583).

DAVY, Dr. J. B. (See under British Government, Imperial Forestry Institute.)

DAWSON, J. H. (See under Dr. E. M. Houghton.)

DAWSON, Mrs. T. H., Washington, D. C.: All-white quilted counterpane ornamented by elaborate pattern, delineated by a running stitch, which stands out in low relief on a closely quilted background; made early in 19th century by Mrs. Susan Ann (Camp) Coe, great-grandmother of donor (131349); (through C. W. Mitman) U. S. Army officer's sword of Civil War period (133255); (through Mrs. C. W. Mitman) fan, parasol, 4 buttons, and 4 coins (134165).

DEARDEN, W., Putnam, Conn.: Small collection of insects (129764); small collection of scale insects from Cape Cod (130444).

DEGENER, OTTO, New York City: 526 plants from Hawaiian Islands (131564, 132115, 132443, 132763, 133261, 133798, 133833, 133960).

DEICHMANN, Dr. ELISABETH. (See under Harvard University, Museum of Comparative Zoology.)

DEIGNAN, H. G., Washington, D. C.: 86 bird skins and 1 mammal skin from Central America (132683).

DELACY, ALLAN. (See under Arthur Chapman.)

DEMAREE, DELZIE, Friendship, Ohio: 527 plants from Ohio and Arkansas (130602, 130795, 131365, 131904, 132328, 134051); 51 plants (131823).

DEONIER, C. C., Stillwater, Okla.: Small collection of mites (122444).

DE PAUW UNIVERSITY, Greencastle, Ind.: 8 ferns from Honduras (133540, exchange).

DE PRIESTER, Dr. L., Apeldoorn, Netherlands; 44 mollusks (133625, exchange).

DEVEREUX, Mrs. J. R., Chevy Chase, Md.: (Through Mary W. Devereux) Section of a Turkish hautboy (132993).

DEVEREUX, MARY W. (See under Mrs. J. R. Devereux.)

DEWEY, L. H. (See under U. S. Department of Agriculture, Bureau of Plant Industry.)

DIAS, Dr. EMMANUEL, Rio de Janeiro, Brazil: Collection of mammals, amphibians, and fishes (135003).

DIETER, M. R., Harrisburg, Pa.: 75 insects (134389).

DILL, HOMER R. (See under State University of Iowa and U. S. Department of Agriculture, Bureau of Biological Survey.)

DINWIDDIE, E. W., Richmond, Va.: 1 plant from Virginia (133022).

DIOGENES, OTHON, Fortaleza, Brazil: 38 insects from Ceara, Brazil (132774).

DIXON, H. N., Northampton, England: 33 Old World mosses (132994, exchange).

DODGE, Mrs. OZIAS, Norwich, Conn.: Collection of material relating to the Ozias Dodge processes of making printable plates (134893).

DONAT, Dr. A., Napalpi, Chaco, Argentina: 1 plant from Argentina (134787).

DONOHO, M. T., Washington, D. C.: 1 olive-backed thrush (131368).

DOWNING OSTEOPATHIC GROUP, San Francisco, Calif.: (Through Martin Loewy and Dr. R. D. Moore) Copy of "Osteopathic Principles in Disease", by C. H. Downing, for addition to the osteopathic collection (134780).

DRAKE, Dr. C. J., Ames, Iowa: 11 insects (134884, exchange). (See also under Mrs. J. E. Guthrie.)

DRUGMAN, Dr. JULIEN, Uccle, Belgium: Set of quartz crystals from Corn-

wall and set of andesine minerals from France (133141, exchange).

DRUSHELL, Dr. J. A., Westfield, N. J.: 58 plants (133615).

DRYDEN, Prof. A. L. (See under Marjorie S. Best.)

DUCKE, Dr. A. (See under Instituto de Biologico Vegetal.)

DUFFNER, O. C., Paradise, Ariz.: 4 birds (132341).

DUGAND G., Dr. A., Barranquilla, Colombia: 33 plants from Colombia (130909, 132120, 134183, 134865).

DUGAS, G. C., New York City: Specimen of wire gold from the Dugas Gold Mines, White County, Ga. (131850).

DUNN, C. E. (See under George Murphy Co., Inc.)

DU PONT CELLOPHANE CO., INC., New York City: Series of 10 specimens illustrating steps in manufacture of cellophane (131926); 18 sheets of cellophane of various colors and 17 specimens illustrating applications of cellophane (133262).

DU PONT DE NEMOURS, E. I., & Co., INC., Wilmington, Del.: Chart of mounted specimens showing derivatives and applications of synthetic dyestuffs; also a model of a living room showing applications of synthetic dyestuffs in coloring of clothing, draperies, upholstery, furniture, and wall paper (130891); 12 specimens showing stages in manufacture of Duco finish and 16 photographs of processing machines and tests applied to determine quality of product (132358); 13 specimens showing stages in manufacture of synthetic rubber and other synthetic organic compounds (133812); 12 small metal panels illustrating application of Duco finish (134969); 20 specimens of synthetic chemicals, comprising camphor and rubber, and 2 specimens of wood showing use and nonuse of a synthetic wood preservative (134988).

DU PONT VISCOLOID CO., INC., New York City: Series of 9 specimens illustrating steps in manufacture of pyralin plastics (131927).

DU TOIT, C. A., Capetown, South Africa: 2 young and 3 tadpoles of a frog (132416).

DUVAL, H. H., Bastrop, Tex.: 10 mollusks from Colorado River, Bastrop County, Tex. (129309); 9 beetles from Texas (130289).

EAGLE, Hon. J. H., Washington, D. C.: Exhibition specimen showing contact of anhydrite rock and rock salt, from salt mine at Hockley, Tex. (132511).

EATON, Mrs. GENEVIEVE J., Norwich, N. Y.: Sailplane, *Falcon*, 1934, made by Bowlus-Dupont Co. of California for Warren Eaton and piloted by him in many soaring flights (134528).

EHRMANN, M. L., New York City: 1 cut emerald green fluorite from Africa (132782, exchange).

EICKEMEYER, RUDOLPH, ESTATE OF, Yonkers, N. Y.: (Through Mrs. Florence B. Eickemeyer and First National Bank & Trust Co. of Yonkers) 188 pieces of photographic equipment and 2 pieces of buffalo cloth (128696).

ELIAS, BROTHER, Barranquilla, Colombia: 158 plants from Colombia (130420, 131370, 134852); 31 fishes, 44 mollusks, 2 crustaceans, and 2 echinoderms from Colombia (133136).

EMERY, B. F., Detroit, Mich.: 1 specimen of limestone showing ice crystal markings from Mackinac Island (130590).

ERLANSON, C. O., Washington, D. C.: 27 mosses from Virginia (134829). (See also under U. S. Department of Agriculture, Bureau of Plant Industry.)

FAIRCHILD, GRAHAM, Monticello, Fla.: (Through Dr. Alan Stone) 1 fly (paratype of species) (132369).

FALL, H. C., Tyngsboro, Mass.: 2 beetle paratypes (131872).

FAN MEMORIAL INSTITUTE OF BIOLOGY, Peiping, China: 8 photographs of Chinese ferns (130299).

FAUROTE, FAY L., New York City: Quantity of automotive and aeronautical historical material, including books, photographs, advertising matter, scrapbooks, and notes collected by donor during a long connection with the automobile and aircraft industries (131128).

FAUSTINO, Dr. L. A., Manila, Philippine Islands: 20 shells from the Philippines (132719).

FEATHERLY, Prof. H. L. (See under Oklahoma Agricultural College.)

FEDERACION NACIONAL DE CAFETEROS DE COLOMBIA, Esperanza, Colombia: (Through R. P. Roba) 4 beetles from Colombia (134234).

FEDERAL AIRCRAFT WORKS, Minneapolis, Minn.: Airplane ski for use in winter flying operations (134378).

FELIPPONE, Dr. F., Montevideo, Uruguay: 76 mollusks, 1 bird, 10 crabs, 13 insects, and 1 amphibian

(129074, 129488, 130574, 131612, 133550).

FESENMEIER, LEO, Baltimore, Md.: 2 heavy copper bracelets of aboriginal manufacture found at Central City (now West Huntington), W. Va., in 1905 (130283).

FIDUCCIA, C. S., New Orleans, La.: 1 beetle from Mississippi (129798); 1 beetle and 1 crab from Louisiana (130329); 1 fence lizard from New Orleans (130416); 1 nest of insects (134250).

FIELD MUSEUM OF NATURAL HISTORY, Chicago, Ill.: 1 fern from Canal Zone (130970, exchange); 17 plants from Bolivia (133031, exchange); 4 plants (133315); 6 plants from Mexico (134277, exchange); 28 mammals (27 skins and 26 skulls of primates, carnivores, ungulates, and rodents from Africa, Asia, and South America) (134331, exchange); 1 plant from Colombia (134456, exchange); (through K. P. Schmidt) 1 lizard (paratype) from Santo Domingo City (123367).

FIRESTONE, Dr. CHARLES, Albuquerque, N. Mex.: 2 human brains, 1 of a Navaho boy and 1 of a Laplander girl (131825).

FIRST NATIONAL BANK & TRUST CO. OF YONKERS, N. Y. (See under Estate of Rudolf Eickemeyer.)

FIRTH, F. E. (See under Capt. Robert Giffin and Capt. Phillip Parisi.)

FISHER, DR. A. K., Washington, D. C.: 2 tongues of birds in alcohol (133556); 1 razor-billed auk (134081).

FISKE, D. L., Grafton, Mass.: Group of tools used in making wooden pumps and pipe, including a large pod auger, auger handle, rotary plane, and pump valve box (132138).

FLAGG, JAMES MONTGOMERY, New York City: (Through Col. J. A. Moss) Original drawing made by donor during World War showing Uncle Sam saying "I want you for the U. S. Army" (130313).

FLATAU FABRICS CORPORATION, New York City: 5 specimens of novelty dress fabrics made of rayon and acetate yarns and dyed to give effect of warp prints (134087).

FLEETWOOD, R. J., Bryson City, N. C.: 1 parasitic worm, 1 northern golden mouse, and 2 shrews (130321, 132202).

FLEMING, J. H., Toronto, Ontario: 3 birds of forms new to Museum (134814, exchange).

FLORIDA REPTILE INSTITUTE, Silversprings, Fla.: 2 red-bellied terrapins (133084).

FLORIDA STATE MUSEUM, Gainesville, Fla.: 35 fishes from Florida (110116).

FLUCK, Rev. W. H., Utica, N. Y.: 42 land shells from northern Africa (128842).

FOERSTE, Dr. A. F. (See under Prof. A. C. Swinnerton.)

FOLTZ, E. K., Washington, D. C.: French silver medal commemorating the career of the French parasitologist Raphael Blanchard (133953).

FORT DEARBORN CAMERA CLUB, Chicago, Ill.: (Through L. H. Longwell) 40 pictorial photographs by William Clive Duncan (133951, loan).

FOSHAG, Dr. W. F., Washington, D. C.: Stone beads purchased from Indians at Tasco, Guerrera, Mexico (133146). (See also under Smithsonian Institution, National Museum.)

FREYDBERG BROS., INC., New York City: 28 bolts of narrow ribbon made of cellophane (134827).

FRISON, Dr. T. H., Urbana, Ill.: 8 insects (paratypes) (133007, exchange).

FRITZSCHE BROS., INC., New York City: 123 specimens of essential oils and related substances (131852).

FRODERSTROM, Dr. H., Stockholm, Sweden: 13 photographs of plant type specimens (130433, exchange).

FROES, RICARDO, Maranhao, Brazil: 61 plants from Brazil (131020).

FROST, C. A., Framingham, Mass.: (Through H. G. Barber) 104 specimens and 1 vial of miscellaneous insects and 25 named beetles (131029, 132171, 134164).

FULCHER, R. A., Clarendon, Va.: 2 immature Cooper's hawks (130995).

FULLER, H. S., Washington, D. C.: 1 puparium and the remains of its host (a pill bug) from Capeville, Va. (130282).

FULTON, H. C., London, England: 1 mollusk (130308).

FURTOS, NORMA C., Cleveland, Ohio: 2 slides and 13 alcoholic specimens of ostracods, including type and paratypes of a new species from Florida (130632).

GAGE, Prof. S. H., Ithaca, N. Y.: 17 larval and adult brook lampreys from central New York (133845).

GAIGE, Mrs. H. T. (See under University of Michigan.)

GANDARA, Prof. GUILLERMO, Mexico City, D. F.: 6 plants from Mexico (130565, 131211, 132432, 134689).

GARBER, P. E., Washington, D. C.: 2 old carpenter's tools, mid-19th century, English grooving plane and wrought-iron brace (132459); a winged insignia of type worn by pilots of the first continuous air-mail service in the United States established May 15, 1918, between New York and Washington (134483).

GARDEN CLUB OF AMERICA, New York City: (Through Mrs. W. A. Lockwood) 1 large glass-enclosed group and 2 small all-glass cases each containing a single house model (101947).

GARDENER, Mrs. DANIEL, Newburgh, N. Y.: Textile material comprising a bedspread, dress patterns, ribbon, and articles of personal apparel (43 specimens) (131392); collection of jewelry of 19th century (134267).

GARDNER, Dr. JULIA. (See under Edgar Bowles.)

GARDNER, T. R., Moorestown, N. J.: 5,000 insects (134078).

GARRETT, Prof. A. O., Salt Lake City, Utah: 6 plants from Utah (132097).

GATES, Prof. F. C., Manhattan, Kans.: 1 tooth and 1 ear bone of a wapiti (134476).

GATES, Dr. G. E., Newton Center, Mass.: 21 Chinese earthworms, forming in part the material on which is based Dr. Gates' monograph on the Chinese earthworms collected by the Rev. D. C. Graham (131565). (See also under Y. Chen.)

GATES, Rev. SEBASTIAN, Grenada, British West Indies: 1 cricket nymph (132319).

GATY, C. B., Clermont, N. Y.: 2 radio tuning units used in a receiving set of 1916 (130154).

GAZIN, Dr. C. L. (See under Smithsonian Institution, National Museum.)

GEDDES, Mrs. ALICE, Washington, D. C.: 29 ethnological specimens collected before 1903 by the late Hon. George W. Smith (133258).

GEER, FLORENCE K. (See under Florence A. Wetmore.)

GEIS, H. L., Chicago, Ill.: 31 Mississippian ostracods (31 species) from Spergen Hill, Ind. (133026).

GENEVA, SWITZERLAND, CONSERVATOIRE ET JARDIN BOTANIQUES: 1,429 plants from western and southern Europe (133035, exchange).

GEOLOGICAL SURVEY OF INDIA, Calcutta, India: 1 specimen of sodalite-bearing pegmatite of Kishengarh, India (127560).

GEOLOGICAL SURVEY OF NEW ZEALAND, Wellington, New Zealand: (Through Dr. J. Marwick) 62 Triassic brachiopods from New Zealand (131169, exchange).

GERMEYER, C. F., Harrisburg, Pa.: Model of an oscillating steam engine designed by William Graham, of Carlisle, Pa., about 1880 (132179).

GIDLEY, Mrs. FLORENCE E., Washington, D. C.: Series of model restorations illustrating evolution of the horse in North America, prepared by late Dr. J. W. Gidley (132705).

GIFFEN, Capt. ROBERT and CREW, Boston, Mass.: (Through F. E. Firth) 1 large *Chimaera* from southern part of Browns Bank and 4 other fishes from off Cape Henry, Va. (131409).

GIFFORD, W. S. (See under American Telephone & Telegraph Co.)

GILBERT, H. G., Minneapolis, Minn.: 4 plant type specimens from Iowa and Minnesota (133148).

GILLETT, NINA L., Elkhart, Ill.: Pair of lace cuffs said to have belonged to Queen Isabella, given to donor by H. R. H. Infanta Eulalia of Spain (134882).

GILMORE, C. W., Washington, D. C.: 1 turtle shell, collected near Acadia, Fla. (133636); model of a saber-tooth tiger (134999).

GLASSELL, S. A., Beverly Hills, Calif.: 3 recent crabs and 1 fossil crab (131726); 9 crabs (paratypes of new species) (133885). (See also under San Diego Society of Natural History.)

GLENN, M. O., Magnolia, Ill.: 41 Lepidoptera (131601).

GLUCK, Dr. HUGO. (See under Botanisches Institut der Universitat.)

GODING, Dr. F. W., Livermore Falls, Maine: (Through Livermore Falls Trust Co.) About 5,000 Homoptera, including about 70 types of species (131873, bequest).

GOE, M. T., Portland, Oreg.: 2 butterflies from Portland (130331).

GOODMAN, G. J. (See under University of Oklahoma.)

GOODRICH, B. F., RUBBER CO., Akron, Ohio: 4 panels on which are mounted 54 specimens showing materials used and steps in manufacture of automobile tires (131336). (See also under Cleveland Welding Co.)

GOODRICH, Dr. CALVIN. (See under University of Michigan, Department of Zoology.)

GOODWIN, EMILY N., Brooklyn, N. Y.: (Through Mrs. Flora K. Hess) 4 study samples in 4-harness and 6-harness summer-and-winter weave and the 2 drafts used by donor in making these modern hand-woven fabrics (131166).

GOODYEAR TIRE & RUBBER CO., Akron, Ohio: 5 specimens illustrating steps in manufacture of plioform, a hot molding plastic derived from rubber (134188).

GOODYEAR-ZEPPELIN CORPORATION, Akron, Ohio: Examples of airship girder sections of 3 types used in construction of the *Macon* (130511).

GORDON, Dr. ISABELLA. (See under British Museum of Natural History.)

GORZ, RUDOLF, Brandenburg, Germany: 25 plants from Asia (132481, exchange).

GOSLIN, C. R., Lancaster, Ohio: 1 fern from Ohio (132081).

GOSLIN, ROBERT, Lancaster, Ohio: 2 insects from Ohio (131945); 75 insects found on moss (132100).

GOTT, Mr. and Mrs. J. F., and ANNA E., Brumley, Mo.: 1 stereoscope and graphoscope combined (133816).

GOVERN, SYLVIA, Brooklyn, N. Y.: Specimen of metamorphosed sandstone from Newark series, Paterson, N. J. (134594).

GOWANLOCH, Dr. J. N., New Orleans, La.: 2 crabs from Ycloskey, La. (130414).

GRAF, J. E., Washington, D. C.: Mexican paper currency issued 1913–15 (133050).

GRAHAM, Dr. D. C., Chengtu, China: 101 mammals, about 29,272 insects, 74 skins and 46 skeletons of birds, 2,050 mollusks, 267 reptiles and amphibians, 35 marine invertebrates, 1 fish, and 5 "hands" of tobacco, all collected in China (130587, 130986, 131444, 132095, 133051, 133964).

GRAHAM, DOUGLAS, Takoma Park, Md.: 1 cone from Potomac group, Northwest Branch, Anacostia (133949).

GRAHAM, Dr. HERBERT, and BOLIN, Dr. ROLF, Pacific Grove, Calif.: 20 fossil crabs from Pacific Grove (134075).

GRAHAM, Judge W. J., Washington, D. C.: Piece of native copper from Nott mine near Glenn Springs, S. C. (134390).

GRANDJOT, Dr. C., Santiago, Chile: 1 plant from Chile (131765).

GRAVES, LILLIAN, Washington, D. C.: Small earthenware vessel said to have come from Arica, Chile (132723).

GREEN, JAMES, Washington, D. C.: 3 fans and 4 beaded handbags presented in memory of donor's wife (134891).

GREENMAN, Dr. J. M. (See under Missouri Botanical Garden.)

GREGG, H. R. (See under U. S. Department of the Interior, National Park Service.)

GREGORY, W. C., Amherst, Va.: 1 plant from Virginia (130460).

GREIST, Mrs. H. W., Point Barrow, Alaska: 2 tympanic ear bones of bowhead whales (131192).

GRENACHER, HENRY. (See under Northern States Power Co.)

GRESSITT, J. L., Berkeley, Calif.: 3 beetles (holotypes of 3 new species) (133120).

GRIEPENTROG, ELMER, Salem, Oreg.: 41 plants from Oregon (131106).

GRIFFIN, Mrs. H. R., London, England: (Through Mrs. C. Osterheld) Wax doll representing H. M. Queen Mary of England, costumed for the opening of Parliament (134557).

GRIFFITH, Mrs. W. E., Washington, D. C.: 1 scarlet tanager (134671).

GRIGSBY, FULTON, Washington, D. C.: Fossil log from District of Columbia (134710).

GRUNER, J. W., Minneapolis, Minn.: 4 specimens of magnetite from Mesabi Range, Minn. (131961).

GUNDY, Mrs. F. J., Scotland, Ontario: Chert blade found about 1 mile north of Scotland, Brant County (130392).

GUNNELL, L. C., Alexandria, Va.: 1 weasel from Fairfax County, Va. (130322).

GURNEY, ELIZABETH, St. Cloud, Minn.: Model illustrating the ceremony of Royal Touch for cure of King's Evil (scrofula), for addition to psychic medical collection (134166).

GUSTAFSSON, C. E., Tralleborg, Sweden: 31 plants from Sweden (134049).

GUTHRIE, Mrs. J. E., Ames, Iowa: (Through Prof. C. J. Drake) 579 slides of insects, the personal collection of the late Prof. J. E. Guthrie (134625).

HAAF, ANNA. (See under Tulane University.)

HAAS, Dr. F. (See under Senckenbergische Naturforschende Gesellschaft.)

HADDOCK, R. M., New Rochelle, N. Y.: Watch movement made by Jules Jurgensen, Copenhagen, about 1860 (130463).

HADZI, Dr. JOVAN, Lujubljana, Yugoslavia: 1 insect (132430).

HAILMAN, Dr. A. Z., Carson City, Nev.: (Through Willman Spawn) 1 specimen of limonite from Carson City (130175).

HAINES, MRS. DORA B., Washington, D. C.: Beaded trimmings for a pair of moccasins and a rattle, collected among Chippewa Indians of Minnesota in 1875 by donor's father (131032).

HALL, C. W., Austin, Tex.: 1 cultivated plant (131405).

HALL, H. B., Wardner, Idaho: (Through W. M. Huff) 3 specimens of plattnerite from Idaho (130991).

HALSEY, W. S., Walpole, N. J.: (Through Mrs. W. S. Halsey) Gold ring with an ancient seal setting carved about 450 A. D. (130583).

HAMNER, A. L., State College, Miss.: 15 plants from Mississippi (131353).

HANCOCK, Capt. G. A. (See under Smithsonian Institution, National Museum, Dr. W. L. Schmitt.)

HANDLEY, C. O., Richmond, Va.: 1 sponge (131411).

HARDEY, Mrs. E. A., Washington, D. C.: 1 41-inch hand-woven cotton rag carpet, made about 1832 in Moore County, N. C., by Mrs. Mary E. Dyer, great-grandmother of donor (131918).

HARDY, CHARLES, New York City: Sample of romeite from near Njan Hui, northwest Kwangsi, China (133531, exchange).

HARE, GEORGE, Fresno, Calif.: 4 samples of andalusite altering to muscovite from Fresno County (132477).

HARPER, Dr. R. M., University, Ala.: 161 plants from Southern United States (131938, 134874).

HARRAH, Prof. E. C., Greeley, Colo.: 2 phyllopods (130847).

HARRIS, C. L., Cordele, Ga.: (Through Dr. C. Wythe Cooke) 2 lots of fossil cetacean material (133956, deposit).

HARROLD, Dr. C. C., Macon, Ga.: Surface collection of potsherds from Kolee Mokee site in Early County, Ga. (131049).

HART, W. L. (See under H. D. Cochran.)

HARTMAN, OLGA, Berkeley, Calif.: 6 marine annelids from California (132504).

HARVARD UNIVERSITY:

Arnold Arboretum, Jamaica Plain, Mass.: 518 plants, mainly Old World (134460, exchange); 22 plants from Asia (134666, exchange).

Farlow Herbarium, Cambridge, Mass.: 451 plants (130880, exchange); 100 lower cryptogams (131212, exchange); 22 plants from Jamaica (131617, exchange); (through Dr. D. H. Linder) 32 plants from China (131580, exchange).

Gray Herbarium, Cambridge, Mass.: 398 plants (130298, exchange); 1 fern from Chile (130989, exchange); (through Dr. B. L. Robinson) 111 plants from Georgia (131371, exchange); 129 plants and 100 photographs of plants (131742, exchange); 2 ferns from Central America (131776, exchange); 100 photographs of plants, chiefly type specimens (132445, exchange); 8 ferns from Bolivia (133021, exchange), 107 plants, mainly from the Congo (133259, exchange); 106 plants from Ontario and Michigan (133541, exchange); 27 ferns from South America (133799, exchange); 58 plants from Swan Islands, off Honduras (134274, exchange); 412 plants (134863, exchange).

Mineralogical Museum, Cambridge, Mass.: 1 specimen of Frankfort meteorite and 1 slice of Ticraco Creek meteorite (134591, exchange). (See also under Canfield Fund.)

Museum of Comparative Zoology, Cambridge, Mass.: 22 reptiles from *Utowana* collection (129576); 14 birds (130807, exchange); (through Dr. Elisabeth Deichmann) 1 alcyonarian from Cuba (130916); (through Dr. F. A. Chace, Jr.) collection of marine invertebrates taken by *Atlantis* at Woods Hole, Mass. (131226); 8 reptiles from Africa (131812, exchange); 32 crabs from Africa (131845, 131930); 18 reptiles from Haiti, part of Darlington collection (132442); (through P. J. Darlington) 3 beetles (133629).

HARWOOD, G. F., Washington, D. C.: 1 adult turtle from 3 miles north of St. Marys City, Md. (134980).

HASSLER, Mrs. MILDRED M., State College, Pa.: 13 plants, including photographs (132330); 84 plants (132972, 133015, 133257).

HASTINGS, Dr. ANNA B. (See under British Museum of Natural History.)

HAUGHT, O. L., El Centro, Colombia: 1 fern from Colombia (131375).

HAWKS, A. M., Boise, Idaho: Collection of phosphatic concretions with fossil remains, from Weiser, Idaho (131245).

HAYNES, CAROLINE C., Highlands, N. J.: 25 plants from New Mexico (130201); 10 plants from California (131925).

HAZZARD, Rev. T. R., Millbrook, N. Y.: 6 pieces of iron money from Liberia (129935).

HEAD, F. D., Washington, D. C.: Pair of dueling pistols in case with accessories, made during early 19th century by Blunt & Syms, New York (134997).

HEBREW UNIVERSITY, Jerusalem, Palestine: 200 plants from Palestine (132507, exchange).

HECKLINGER, G. E. (See under Maryland Academy of Sciences.)

HECKLINGER, R. S. (See under Maryland Academy of Sciences.)

HEDGES, R. F., Norman, Okla.: 124 land and fresh-water shells from Oklahoma (133826).

HEINRICH, GERD, Sepolno, Poland: 8 insects (132974, exchange).

HEINTZ & KAUFMAN, San Francisco, Calif.: Radio transmitter set, box, and generator constructed by donors and used by Sir Hubert Wilkins in his 2,200-mile flight with C. B. Eielson from Alaska to Spitsbergen in 1928 (127908).

HEIZER, R. F., Lovelock, Nev.: Archeological material from various sites in and near Sacramento Valley, Calif., and in Humboldt Lake region, Nev. (130380).

HELLER, Dr. K. M. Dresden, Germany: 2 beetles (2 species, 1 represented by paratype) (133566, exchange).

HELLMER, ISABELLA M. (See under Marjorie S. Best.)

HENDERSON, E. P. (See under Smithsonian Institution, National Museum.)

HENDERSON, Prof. JUNIUS, Palo Alto, Calif.: 35 fresh-water gastropods (5 lots) from California and Oregon (130293).

HENDERSON, W. C. (See under U. S. Department of Agriculture, Bureau of Biological Survey.)

HENRY, Prof. H. K., Argyle, N. Y.: 25 pinned specimens and 1 vial of beetles (130386).

HERMANN, F. J., Ann Arbor, Mich.: 118 plants, mostly from Kansas and Indiana (132349).

HEROLD, J. A., Richmond, Va.: 1 insect (130518).

HERRE, A. W., Stanford University, Calif.: 15 shrimps, 4 stomatopods, 1 sponge, 10 crabs, 4 mollusks, and 1 echinoderm (133585).

HERTLING, Dr. H. (See under Staatliche Biologische Anstalt Auf Helgoland.)

HESS, Mrs. FLORA K. (See under Emily N. Goodwin.)

HESS, F. L., Washington, D. C.: 4 samples of cuprotungstite from Tonichi, Sonora, Mexico; 1 torbernite from Spruce Hill, N. C.; and 4 samples of copalite from Medellin, Colombia (133128).

HEYDWEILLER, A. MARGUERITE, and BAUMGARTNER, F. M., Ithaca, N. Y.: 1 nest and 4 eggs of Harris' sparrow (131420).

HEYL, G. R., Princeton, N. J.: 4 pieces of Ordovician fossiliferous limestone from Newfoundland (132464).

HIBBARD, R. R., Buffalo, N. Y.: 20 slabs of shale with conodonts, from Portage group of Erie County, N. Y. (130446).

HICKS HELICOPTER, INC., Mechanicsville, N. Y.: Model of Hicks helicopter unit comprising series of airfoils in helical echelon (134480).

HIGGINS, J. S., San Diego, Calif.: 2 cumaceans (125119).

HIGHTOWER, G. I., Washington, D. C.: 4 fresh-water bryozoans (131627).

HILDEBRAND, Dr. S. F., Washington, D. C.: Tunafish (head, vertebral column, and viscera) from Wildwood, N. J. (130410). (See also under U. S. Department of Commerce, Bureau of Fisheries.)

HILL, J. M. (See under U. S. Department of Agriculture, Bureau of Plant Industry.)

HILL, Capt. W. H. T. (See under Paul Wilstach.)

HILLIER'S, R., SON CORPORATION, New York City: 1 specimen each of agar, Irish moss, ergot, and *Lycopodium* for materia medica collection (131407).

HIMES, J. H., Washington, D. C.: Collection of ancient Persian pottery and armor and a Peruvian pottery jar (131618, loan).

HITCHCOCK, Dr. A. S. (See under U. S. Department of Agriculture, Bureau of Plant Industry.)

HOEHNE, Dr. F. C. (See under Instituto Biologico.)

HOFFMAN, G. W., Columbus, Ohio: Pottery representation of a maize ear excavated at Machu Picchu, Peru, overlooking Urupampa Valley (131009).

HOFFMAN, I. N., Cabin John, Md.: 1 young Muhlenberg's turtle from Stubblefield Falls, Va. (131439).

HOFFMAN, R. J., St. Petersburg, Fla.: 2 calculating instruments for airplanes; a propeller pitchmeter and a "triple-slide airplane calculator" invented by donor in 1910 and 1914, respectively (130554).

HOFFMAN, Dr. W. A.: San Juan, Puerto Rico: 2 land crabs (133523).

HOGSTAD, Dr. ANTON, Jr., Rahway, N. J.: Prescription scale patented in 1885 and a folding spatula (134491).

HOLLISTER, Mrs. MABEL P., Washington, D. C.: 99 plants from Wisconsin and South Dakota (131015).

HOOD, Prof. J. D., Rochester, N. Y.: 3 beetles (130192).

HOOPES, W. H., Washington, D. C.: Ebony cane with ivory head, silver fittings, made in England, and a powder flask (131191); tall case clock of about 1820 marked "Jas. Hansell, Philadelphia" (131393, loan).

HOPE, ARTA B., Maryville, Tenn.: 3,800 insects collected near Elat, Cameroons, by Dr. F. H. Hope (130866).

HOPKINS, MARCUS, Washington, D. C.: A 12-noded aluminum connector, the mold for which was developed by donor for use of Dr. A. G. Bell in kites and other tetrahedral structures in 1904 (130484).

HORN, A. E., New Milton, Hants, England: 5 specimens of manganese ores from African Manganese Co.'s mines at Nsuta, Gold Coast (124135, exchange).

HORSFALL, BRUCE, Washington, D. C.: 2 crayfishes from Big Black Mountain, Va. (130996).

HOTCHKISS, NEIL, Washington, D. C.: 78 plants from Mount Hamilton, D. C. (134828). (See also under U. S. Department of Agriculture, Bureau of Biological Survey.)

HOUGH, F. C., Morgantown, W. Va.: (Through Dr. Walter Hough) Banded slate bannerstone from West Virginia and flint fishhook from North Carolina (130890).

HOUGH, Dr. WALTER, Washington, D. C.: Miscellaneous collection, including ceramics, metalwork, and Indian relics (132469); 72 miscellaneous prints, etchings, engravings, drawings, mezzotints, lithographs, halftones, colotypes, and photogravures (134028). (See also under F. C. Hough.)

HOUGHTON, Dr. E. M., Detroit, Mich., and DAWSON, J. H., Milford, Mich.: Exhibition specimen of jasper conglomerate from drift of Michigan (133542).

HOWE, E. A., New York City: Allen & Thurber pistol made about 1850 (133065).

HOWE, Dr. M. A., New York City: Specimen of Eocene limestone with calcareous algae, from California (130525).

HOWELL, A. B., Baltimore, Md.: 26 small mammal skins with skulls (133010).

HOWELL, A. H., Washington, D. C.: Foot and head of blue goose (131828).

HOWELL, Prof. B. F., Princeton, N. J.: 14 casts and 11 specimens of Cambrian invertebrates from Vermont and France (134781).

HRDLIČKA, Dr. ALEŠ, Washington, D. C.: 4 opossums and 1 gray squirrel from Cleveland Park, D. C. (133011, 134684). (See also under Smithsonian Institution, National Museum.)

HUFF, W. M., Kellogg, Idaho: 1 specimen of plattnerite from Idaho (130405). (See also under H. B. Hall.)

HUGHES, Mrs. E. M., Washington, D. C.: Sword worn during battle of Manila Bay, May 1, 1898, by Commander Edward M. Hughes, U. S. Navy, and naval medals and insignia worn by him at various periods of his naval career, 1870–1903 (132121).

HUGO, E. H., Meriden, Conn.: 1 small book (134889).

HUGUES, A., Gard, France: Lower jaw of a shrew (132312).

HULL, Prof. F. M., University, Miss.: 1 beetle (133087).

HUME, Maj. E. E. (See under Society of the Cincinnati.)

HUNGERFORD, Prof. H. B. (See under University of Kansas.)

HUNT, ESTHER. (See under Mrs. M. B. Benson.)

HURLBURT, E. N., Rochester, N. Y.: The E. Hurlburt collection of Paleozoic fossils (134784).

HUSE, Vice Admiral H. P., Washington, D. C.: Spanish cavalry officer's saber (131417).

HUTCHINS, R. E. (See under Mississippi State College.)

HUTCHINSON, Prof. G. E., New Haven, Conn.: 10 bugs (including 3 paratypes of 3 species) from Asia (132125).

HUTCHINSON, W. L., Lowell, Mass.: Wasp's nest collected near intersection of Crain and Defense Highways, Md. (132749).

HUTTY, ALFRED, Charleston, S. C.: 53 etchings and drypoints for exhibition March 25 to April 21, 1935 (133797, loan).

IDAHO MARYLAND CONSOLIDATED MINES, INC., Grass Valley, Calif.: (Through Granville Borden) Specimen of gold in quartz from Idaho Maryland mine, Grass Valley (133134).

IMPERIAL COLLEGE OF SCIENCE AND TECHNOLOGY, London, England: (Through O. W. Richards) 4 flies (paratypes of 2 new species) (129265).

INNES, W. T., Philadelphia, Pa.: 1 fish (132201).

INSTITUTO BACTERIOLOGICO, Buenos Aires, Argentina: (Through Dr. L. Uriarte) 25 insects from Argentina (133115).

INSTITUTO BIOLOGICO, São Paulo, Brazil: (Through Dr. F. C. Hoehne) 522 plants from Brazil (130404, 130451, 131622, 133143; exchange)

INSTITUTO BOTANICO, Modena, Italy: 102 plants, chiefly from Europe (130206).

INSTITUTO DE BIOLOGICO VEGETAL, Rio de Janeiro, Brazil: (Through Dr. A. Ducke) 320 plants from Brazil (130451, 131622, 133143; exchange).

INSTITUTO DE GEOLOGIA, Mexico City, D. F.: 1 specimen of johannsenite with bustamite from Tetela del Oro, Puebla, Mexico (134725).

INSTITUTO GEOLOGICO, UNIVERSITARIO, Rome, Italy: 6 brachiopods from Pliocene deposits on Monte Mario, near Rome (129250, exchange).

INTERIOR, U. S. DEPARTMENT OF THE:

Geological Survey: The original trilens aerial camera for mapmaking (129440); 27 Miocene and Pliocene Foraminifera from wells in Kettleman Hills, Calif., collected by R. M. Kleinpell (130879); about 2,000 pelecypods (42 lots) from Choctawhatchee formation of Florida (131416); 2 specimens of vermiculite from Libby, Mont., and 1 of diatomite from Roza, Wash. (131730); collection of rock and mineral material described by M. I. Goldman (132152); 1 specimen of sphalerite intergrown with feldspar from McKinney mine, Spruce Pine, N. C. (132153); thin sections and card catalog of described igneous and metamorphic rocks of southern Appalachian region (132437); 2 fossil dragonflies from Fort Union formation at Intake, Mont. (133085); 31 Silurian invertebrates from southeastern Alaska and 150 Ordovician cephalopods from Rocky Mountains region (133086); 25 Middle Devonian invertebrates collected by W. H. Bradley and party in 1934 in central New York (133583); 6 specimens of "phantomquartze" from Minas do Rio de Contas gold placers, Bahia, Brazil (133805); 1 Ordovician seaweed (134451).

National Park Service: (Through A. B. Cammerer) 443 plants from Hot Springs National Park, Ark. (132500); (through H. R. Gregg) 1 white-throated swift (134261); 24 woods from trees felled in Botanic Garden and other parks in Washington, D. C., 1934–35 (124804); miniature group model representing Cherokee ghost dance (134877, loan).

Welfare Committee: (Through Mrs. Grace C. Blaisdell) Pair of heavily beaded buckskin trousers made by Sioux Indians (134260).

INTERNATIONAL NICKEL CO., INC., New York City: (Through R. E. Case) French nickel 5-franc piece and German nickel 1-mark piece, struck in 1933 (133048).

IOWA, STATE UNIVERSITY OF, Iowa City, Iowa: (Through Prof. G. W. Martin) 62 plants (131744, 133023, 134598; exchange); (through Dr. A. K. Miller) 102 brachiopods from Mesozoic formations of Europe (135004, exchange).

Museum of Natural History: (Through Homer R. Dill) 14 barrels of marine invertebrates, including 18 trays of coelenterates, 1 tray of sponges, 10 trays of Crustacea, 2 trays of worms and ascidians; 4 trays of hydroids (including 1 of slides); also 5 barrels (13 trays) of mollusks and 4 barrels (11 trays) of echinoderms; also insects, fishes, and reptiles (131487, deposit).

IRISH, Mrs. F. J., Baltimore, Md.: 1 fungus from Maryland (132213).

ISBELL, F. F., Washington, D. C.: 4 specimens of mercury ore from Pike County, Ark. (134979).

IVES, Prof. J. D., Jefferson City, Tenn.: 8 insects collected in caves (132-320).

JACKSON, BLANCHE E., and POST, WILLIE MAE, Baton Rouge, La.: 108 shells, mostly marine, from Grand Lake, La. (130514).

JACKSON, E. N., Takoma Park, Md.: 1 278-pound jewfish, caught February 23, 1935, at Naples, Fla., by donor and J. W. Cunneen, and 1 mackerel found inside the jewfish (133150).

JACKSON, R. W., Cambridge, Md.: 40 mollusks from the Philippines (132466, 132756, 133525).

JACOBSON, VERNA, Long Beach, Wash.: 1 fossil crab from Washington (131205).

JACOT, ARTHUR, White Plains, N. Y.: 1 vial of minute insects swept from low herbage at Liushu Tai, Laoshan Mountains, Shantung, China, August 1927 (129191).

JAGELLONIAN UNIVERSITY, *Botanical Garden*, Krakow, Poland: 400 plants from Poland (132182, 133127, exchange); 63 ferns, chiefly from Java (132471, exchange).

JARDIN BOTANICO, Madrid, Spain; (Through Dr. A. G. Varela) 4 plants (130894, exchange).

JARDIN BOTANIQUE DE L'ÉTAT, Brussels, Belgium: 150 plants, partly from Belgian Congo (134273, exchange).

JARDIN ZOOLOGIQUE, Sfax, Tunis: 10 Cretaceous brachiopods from Tunis (130176, exchange).

JENKINS, Mrs. C. F., Washington, D. C.: 1 portrait of C. Francis Jenkins and 1 airplane mapping camera (131745).

JERNIGAN, Mrs. C. A., Fort Myers, Fla.: 1 lizard from Fort Myers (130107).

JEWELL, Dr. MINNA E., Madison, Wis.: 11 fresh-water sponges (130757, exchange).

JEWETT, S. G., Portland, Oreg.: 1 bone of short-tailed albatross (132520); 1 paroquet auklet (133555). (See also under U. S. Department of Agriculture, Bureau of Biological Survey.)

JOHANNSEN, Prof. O. A., Ithaca, N. Y.: 2 Hymenoptera (paratypes of species apparently new to Museum) (131165, exchange).

JOHN, E. W., Clear Lake, Utah: 1 slab containing 4 Upper Cambrian brachiopods and several Middle Cambrian cystids (133118).

JOHNSON, BRADLEY, Penland, N. C.: 6 allanite specimens from Rose Branch, N. C. (130454); 1 nontronite sample from White Oak Creek, near Bakersville, N. C. (133025); 4 specimens of oligoclase and orthoclase from Little Rock Creek, Mitchell County, N. C. (134982).

JOHNSON, M. L., Kew, England: 44 fossil invertebrates and fish remains from England and France (130595).

JOHNSTON, A. C., New York City: 58 pictorial photographs for exhibit during October 1934 (131351, loan).

JOHNSTON, MARY S., Kew, England. (See under R. H. Chandler and A. L. Leach.)

JONES, Mrs. H. P., Washington, D. C.: (Through Schuyler & Lounsbury) Seat from an old Chippendale chair, showing original upholstery of haircloth seating, curled hair filling, and linen webbing made from hand-spun yarns (130450).

JONES, J. C., Washington, D. C.: 2 horse skulls and 1 domestic pig skull, all from Cedar Point, Md. (133432); 1 purple martin (134963).

JULIO, Rev. HERMANO, Cochambamba, Bolivia: 67 miscellaneous insects from Bolivia (129057).

JUNIPER, Brother, Washington, D. C.: Pair of sandals of type worn by Franciscans in the Orient (134244).

JUSTICE, U. S. DEPARTMENT OF: 8 airplane propellers and 9 aeronautic instruments, all of World War period (131091).

KANAHIRA, Prof. R. (See under Kyushu Imperial University.)

KANSAS, UNIVERSITY OF, Lawrence, Kans.: (Through Prof. H. B. Hungerford) 8 insects (3 species) (131542); 1 bat skeleton from Barber County, Kans. (133596, exchange).

KEARNEY, Dr. T. H. (See under U. S. Department of Agriculture, Bureau of Plant Industry.)

KEEFER, Mrs. HARRIET, Marshall, Mich.: 3 letters dropped from U. S. Army airplane *Question Mark* during its refueled duration flight, January 1–7, 1929 (133558).

KELLOGG, C. R., Amherst, Mass.: 2 beetles from China (130624).

KELLOGG, Dr. REMINGTON, Washington, D. C.: 1 Maryland yellowthroat (130598).

KELLY, Dr. HOWARD A., Baltimore, Md.: 1 box turtle from Belair, Md. (131723); 2 spiders from Florida (133878, 134443); 1 spider (134582).

KENNEDY, H. F., Jr., Alexandria, Va.: 1 young black drumfish caught by donor off Urbana, Va. (130881).

KENT, F. S., Barnstable, Mass.: Old blacksmith's die or jam plate equipped with 4 sizes of thread-cutting dies and a taper threading tap (132414).

KENTUCKY, UNIVERSITY OF, Lexington, Ky.: (Through A. C. McFarlan) 1 slice from the Campbellsville, Ky., meteorite (131722).

KERNODLE, G. H., Washington, D. C.: Hand-woven coverlet in a variation of "overshot" pattern "Tennessee Trouble" and a pair of woolen imitation lambskin blankets woven as a compound weft-backed velveteen (130457, loan); hand-woven "summer-and-winter" weave coverlet in a variation of the "Queen's Patch" pattern (130449).

KERR, Prof. PAUL, New York City: 2 specimens of mosesite from Fitting district, Nev. (133792).

KERR, R. M., Richmond, Va.: (Through D. I. Bushnell, Jr.) 12 stone artifacts and potsherds from Chesterfield County, Va., 7 miles south of Richmond (131419).

KILBOURNE, RUTH, San Diego, Calif.: 51 pictorial photographs for exhibit during December 1934 (132133, loan).

KILLIP, E. P., Washington, D. C.: 18 plants from South America (131959); 460 plants from Eastern United States (132698, 132973, 133810, 134830).

KIMBER, S. A., Cambridge, Mass.: 2 prints, early examples of the "washed-out process", made February 20, 1874, by W. H. Mumler, who patented the process May 18, 1875 (131912).

KINDLE, Dr. CECIL, New York City: 59 brachiopods from Upper Ordovician Cap Blanc formation of Gaspé, Quebec (132128).

KINDLE, Dr. E. M. (See under Canadian Government, Geological Survey.)

KINDLEBERGER, Rear Admiral C. P., Washington, D. C.: 2 Spanish naval insignia of Spanish American War period (130977).

KINGMAN MEMORIAL MUSEUM OF NATURAL HISTORY, Battle Creek, Mich.: (Through Dr. E. M. Brigham) 1 large exhibition slab and 20 smaller pieces of fossiliferous Marshall sandstone from Michigan (131740).

KINTNER, EDWARD. (See under Manchester College.)

KIRK, Dr. EDWIN, Washington, D. C.: Earthenware figurine (fraudulent) of a type sold throughout the valley of Mexico as genuine (130456); 3 pieces of Moundbuilder pottery collected about 1850 and 1 ancient Peruvian pottery canteen (130528). (See also under Mary M. P. Kirk.)

KIRK, MARY M. P., Washington, D. C.: (Through Dr. Edwin Kirk) Spinning wheel owned by Thomas Jefferson at Monticello (130981, loan).

KLAUBER, L. M., San Diego, Calif.: 2 leaf-nosed snakes from San Diego County (130030).

KLUG, GUILLERMO, Iquitos, Peru: 729 plants from Peru (130919, 131886, 133075).

KNOWLES, W. A., Washington, D. C.: Silver peso of Argentine Republic, struck in 1882 (134160).

KNOWLTON, G. F. (See under Utah State Agricultural College.)

KOLIHA, Dr. JAN, Prague, Czechoslovakia: 4 casts of the type of a trilobite (132508).

KOMP, W. H. W., Ancon, Canal Zone: (Through Dr. Alan Stone) 6 mosquitoes (131031); 13 insects (133563); 2 blocks of wood containing shipworms (134161). (See also under U. S. Treasury Department, Public Health Service.)

KRAMAT PULAI, LTD., Ipoh, Federated Malay States: Collection of tungsten minerals and ores (132207).

KRETZER, Mrs. IDA, Hagerstown, Md.: (Through Mrs. Martha E. Warrenfeltz) 147 small samples of dressgoods, representing a piece of each dress worn by donor from her birth, in 1885, until 1920 (134998).

KRYGER, J. P., Gentofte, Denmark: 21 Danish beetle larvae (21 species) (132220, exchange); silver portrait medal of the Danish zoologist Henrik Krøyer, 1799–1870 (133631).

KYANCUTTA MUSEUM, Kyancutta, South Australia: Fragments of meteorite from near Lake Labyrinth, South Australia (133073, exchange).

KYUSHU IMPERIAL UNIVERSITY, Fukuoka, Japan: (Through Prof. R. Kanahira) 303 plants from Formosa and Micronesia (130540, exchange).

LAEMMLEIN, Dr. GEORGE, Washington, D. C.: Quartz crystals, doubly terminated, from Samschwildo, Transkaukasus, U. S. S. R. (132696).

LANE, BOODLE, Galena, Kans.: 2 calcite crystals from Tristate mine, Cardin, Okla. (132131); 4 specimens of marcasite and calcite from same mine (133024); 3 twinned calcites from Cardin, Okla. (134978).

LANGFITT, Mrs. W. C., Geneva, N. Y.: Pitcher made by Felix Hodt, 3d, in Connecticut or Rhode Island about 1793 (134713).

LARSON, SIGFRID, Washington, D. C.: 51 pictorial photographs for exhibit January 1935 (132448, loan); 3 pictorial photographs (133811).

LA RUE, Dr. G. R., Ann Arbor, Mich.: About 600 mollusks from Chekiang province, China (134269).

LAUDON, Prof. L. R., Tulsa, Okla.: 89 Mississippian crinoids from Gilmore City, Iowa (134163, exchange); 6 Devonian cystids from Shellsburg, Iowa (134592).

LAUSTE, E. A., Bloomfield, N. J.: Brass grain-sampler's balance (134833); 2 pairs of headphones, 1 copy of "Le Nouvel Art Cinematographie" (April 1930), 1 copy of "Honorary Membership S, M. P. E.", 1 copy of "Variety" (May 15, 1935), 1 copy of "New York Sunday News" (October 28, 1934), 1 photograph—E. A. Lauste and M. F. Doublier, first operators for Lumirie Bros., 1895 (134910).

LAWLOR, W. K., Washington, D. C.: 1 mosquito (131030).

LAWSON, Prof. P. B., Lawrence, Kans.: 6 insects (3 species—1 represented by 4 paratypes) (118803, exchange).

LEACH, A. L., Woolwich, England: (Through Mary S. Johnston) Paleolithic implements from high level gravels in or near valley of Thames River (134860).

LEDIG, PAUL, Battery Park, Md.: 2 plants from Straits of Magellan (130333).

LEON, Rev. Brother, Habana-Vedado, Cuba: 16 plants (palms and cacti) (133815, exchange).

LEONARD, E. C., Washington, D. C.: 338 plants, chiefly from Ohio and New Jersey (130585, 134831); 531 plants from Plummers Island, Md. (134886); 614 plants from Mount Hamilton, D. C. (134991).

LEONARD, JOHN, Urbana, Ohio: 1 billet of Tatarian honeysuckle wood (131916); 1 plant from Ohio (131729).

LEPOW, B. H., New York City: 15 ethnological specimens from Italian Somaliland, and a python skin (131602).

LESTER, HENRY, INSTITUTE OF MEDICAL RESEARCH, Shanghai, China: (Through Dr. Mary N. Andrews) 258 mollusks from China (131388, 132478).

LEYVA, C. J., Oaxaca, Mexico: 1 plant from Mexico (132485); 1 large specimen of titanium ore from Cafetal San Francisco, Pluma Hidalgo, Oaxaca (126108).

LI, Dr. FU-CHING, Kaifeng, Honan, China: 32 mollusks from China (134888).

LIN, S. Y., Canton, China: 159 fishes from southern China and Hainan, including paratypes of some new species (133635).

LINDER, Dr. D. H., (See under Harvard University, Farlow Herbarium.)

LINDNER, M. J. (See under U. S. Department of Commerce, Bureau of Fisheries.)

LINGNAN UNIVERSITY, *Lingnan Natural History Survey and Museum*, Canton, China: 865 plants from China (133828, exchange).

LINSLEY, E. G., Berkeley, Calif.: 2 beetles (paratypes of 2 species) (131817).

LITTLE, E. L., Jr., Las Cruces, N. Mex.: 1 plant from New Mexico (130205).

LITTLE, L. C., Washington, D. C.: 1 marsh hawk (133808).

LITTLE, T. V., and PRATT, C. A., Bakersfield, Calif.: 2 cetacean skulls from Miocene of Kern County, Calif. (134022).

LIVERMORE FALLS (MAINE) TRUST CO. (See under F. W. Goding.)

LLOYD, Dr. J. T., Cincinnati, Ohio: Slab mortar and pestle for pharmacy collection (134490).

LOCKE, F. J., San Francisco, Calif.: 4 mollusks (133784).

LOCKE, F. S., San Francisco, Calif.: 11 fishes from China (133119).

LOCKHART, W. E., Ashland, Ky.: 8 specimens of dickite with sphalerite in siderite from Elliott County, Ky. (130309); 1 specimen of sphalerite and dickite from Elliott County (131963); fluorescent moss agates from Sage Hen Creek, Sweetwater River, Wyo. (133818); 1 opal from Virgin Valley, Nev. (134977).

LOCKWOOD, Mrs. W. A. (See under Garden Club of America.)

LOENING, G. C., Garden City, L. I., N. Y.: Model, $\frac{1}{8}$ size, of the Loening M–8, a monoplane designed for service in World War

but prevented by the Armistice from active service (132468).

LOEWY, MARTIN. (See under Downing Osteopathic Group.)

LONG, D. C., Washington, D. C.: Original program and a number of illustrations for the first International Air Meet, held at Rheims, France, 1909 (134992).

LONG, L. E., State College, Miss.: (Through H. B. Collins) Potsherds and other artifacts collected on surface at various Indian village sites in Oktibbeha County, Miss. (130447).

LONGWELL, L. H. (See under Fort Dearborn Camera Club.)

LOOMIS, Dr. H. F., Coconut Grove, Fla.: 84 millipeds (65 species), including 27 holotypes and 1 allotype of new species described by donor, together with a first set of other specimens mentioned in his paper—all collected on the Allison V. Armour Collecting Expedition, 1931–32 (127685).

LOOSER, GUALTERIO, Santiago, Chile: 20 ferns from Chile (133849, exchange).

LOUISIANA STATE UNIVERSITY FIELD LABORATORY, Baton Rogue, La.: (Through Dr. E. H. Behre) Collection of marine invertebrates (medusae, bryozoans, annelids, isopods, hermit crabs, porcellanids, crabs, stomatopods) and 8 fishes (131194).

LOWE, H. N., Long Beach, Calif.: Collection of Crustacea from Pensacosa, Sonora, Mexico (129180).

LUBY, Mrs. T. M., New York City: (Through Mrs. G. W. Mentz) Naval officer's sword and scabbard owned during latter 19th century by Comdr. J. F. Luby, U. S. Navy (133589).

LUHRS, D. L., Albuquerque, N. Mex.: 1 lot of bird bones (132105).

LUNDELL, C. L. (See under University of Michigan, Department of Botany.)

LUNZ, G. R., Jr., Charleston, S. C.: 15 crabs, 20 barnacles, 5 shrimps, and 520 amphipods (132194, 132417, 132689, 134066). (See also under Charleston Museum.)

LUTZ, Dr. ADOLPHO, Rio de Janeiro, Brazil: Collection of amphibians and mollusks, including paratypes of several species (134972).

LUTZ, BERTHA, Rio de Janeiro, Brazil: 293 plants from states of Rio de Janeiro, Sao Paulo, and Minas Geraes, Brazil, collected January-May 1935 (134973).

LYDDANE, Mrs. MARY E., Washington, D. C.: Silk brocade cape made about 1850 by donor's mother (133796).

LYNCH, Prof. J. E., Seattle, Wash.: 3 slides (cotypes) of new genus and species of ciliate protozoan, 6 slides of 2 new species of parasitic worms, and 2 slides of trematodes (130573, 134061).

LYNN, Mrs. A. D., Aransas Pass, Tex.: 1 moth (131155).

LYNN, Dr. W. G., Baltimore, Md.: 2 fossil vertebrae of an Eocene snake (131863).

MACANDREW, V. W., South Devon, England: 31 marine shells from Red Sea (131949).

MACASKILL, W. R., Halifax, Nova Scotia: 60 pictorial photographs (134169, loan).

MACFADDEN, Mrs. FAY A., Culver City, Calif.: 22 plants from California (131011).

MACGINITIE, Dr. G. E., Corona Del Mar, Calif.: 98 amphipods, 1 isopod, and 28 cumaceans from coast of Orange County, Calif. (130577).

MACKELLAR, ROBERT, Peekskill, N. Y.: Operating model, about 1/30 size, of an airway beacon of type installed on Salt Lake–San Francisco Airway in 1928 (133950, loan).

MAGNUS, J. B., New York City: 1 druggist's cork press of type used about middle of 19th century (134669).

MAHARON, MYRTLE B. M., Mount Vernon, N. Y.: Chinese mandarin coat (132730, loan).

MALCOLM, E. S., Ballston, Va.: 1 red bat from Waverly Hall, Va. (131033).

MALLOCH, J. R., Ballston, Va.: 2 flies from Malay Peninsula (130980).

MALPAS, A. H. (See under Colombo Museum.)

MANCHESTER COLLEGE, North Manchester, Ind.: (Through Edward Kintner) 5 insects from Indiana (131230).

MANTER, Dr. H. W., Lincoln, Nebr.: 5 slides of trematodes, including 2 types and 1 paratype (133802); 2 type specimens of trematodes (134698).

MAPES, LUCILLE, Cambridge, Ohio: About 200 Pleistocene shells from Lake Worth, Ala. (134162).

MARBLE, Dr. J. P., Washington, D. C.: 1 sample of graphite in pegmatite rock from Lewiston, Maine (132510).

MARKELL, W. B., New York City: (Through United States Trust Co. of New York) Pocket chronometer made by James Nardin, Pet. no. 6829, 24 size, in gold hunting case (132191, bequest).

MARSHALL, B. C., Imboden, Ark.: 48 insects (129589, 129773, 132185, 132502).

MARSHALL, E. B., Halifax, N. C.: 1 salamander from Laurel, Md. (131548); 1 pirate perch from Quankey Creek, Halifax, N. C. (134484).

MARSHALL, G. H., Benton Harbor, Mich.: 8 specimens of pulp and paper illustrating early manufacture of paper in United States, 1 color book of samples, and 1 scrapbook of clippings on history of papermaking (116793).

MARTIN, Prof. G. W. (See under State University of Iowa.)

MARTIN, Capt. J. V., Garden City, L. I., N. Y.: Model, $\frac{1}{16}$ size, of tractor biplane designed and flown by donor at Hampstead Plains, L. I., 1911 (134996).

MARWICK, Dr. J. (See under Geological Survey of New Zealand.)

MARYE, W. B., Baltimore, Md.: 2 fragments of bannerstone from Harford County, Md. (131596).

MARYLAND ACADEMY OF SCIENCES, Baltimore, Md.: (With cooperation of G. E. Hecklinger and R. S. Hecklinger) 3 bones of a prehistoric whale from Governors Run, Md. (132678).

MASARYK UNIVERSITY, *Botanical Institute*, Brno, Czechoslovakia: 100 plants from Czechoslovakia (134896, exchange).

MASI, Dr. L., Genova, Italy: 8 insects (130418, exchange).

MASSACHUSETTS MOHAIR PLUSH CO., Boston, Mass.: 5 specimens of mohair upholstery plush (134807).

MATHESON, ROY, Chihuahua, Mexico: 1 specimen of native silver from Sabinal, Chihuahua (132451).

MATTOON, W. R., Washington, D. C.: 2 stone artifacts acquired in Arizona and New Mexico (131058).

MAVROMOUSTAKIS, G. A., Limassol, Cyprus: 40 bees from Cyprus (130609, 131448; exchange).

MAXON, Dr. W. R., Washington, D. C.: 75 plants from Maryland (134595). (See also under Smithsonian Institution, National Museum.)

MAXWELL, MARY, Washington, D. C.: Objects of gold, silver, jade, ivory, etc. (133594).

MAY, A. G., Wenatchee, Wash.: Skull showing pronounced ear exostoses (134815, exchange).

MAYBACH MOTOR CO., New York City: A Maybach airship engine, type V12, similar to those used in *Graf Zeppelin*, *Los Angeles*, *Akron*, and *Macon* (134042).

MAYER, FRITZ, Hamburg, Germany: 3 fishes (132383).

MAYFIELD, Dr. R. N., Seattle, Wash.: Photograph of a portrait of Daniel Boone painted by Chester Harding in 1819, small print showing Boone at age of 85, photograph showing sycamore tree near Daniel Boone spring, photograph of Fort Boonesboro, and photograph of fireplace (131150).

MCCARTHY, F. W., Berwyn, Md.: Pair of old spurs (132316).

MCCOWN, B. E., Ironton, Ohio: Archeological and skeletal material and 1 lot of miscellaneous bird bones from Proctorville, Ohio (130285).

MCCOY, SCOTT, Indianapolis, Ind.: 100 plants from Indiana (132083).

MCCOY, Capt. WILLIAM, Palm Beach, Fla.: Small pictorial model of schooner *Arethusa* carved by donor, who was owner and master of the vessel (134089).

MCCREARY, DONALD, Newark, Del.: 7 flies (131014).

MCDUNNOUGH, Dr. J., Ottawa, Ontario: 9 paratypes and 4 genitalia slides of moths (132123).

MCFARLAN, A. C. (See under University of Kentucky.)

MCGLANNAN, Mrs. ALEXIUS, Baltimore, Md.: Collection of ethnological specimens (134628).

MCILHENNY, E. A., Avery Island, La.: 2 specimens of a plant from Louisiana (130306, 130467).

MCINTOSH, W. P., Jr., Buffalo, W. Va.: 1 black-widow spider (130575).

MCKENNA, JAMES, Wallingford, Conn.: Set of early drafting instruments (incomplete) and an old combination parallel rule and circular protractor (131549).

MCKENZIE, Mrs. D. A., Washington, D. C.: Ethnological specimens from the Indians of the Plains and of northern California (134995).

MCKESSON, G. L., Toledo, Ohio: Infant's dress of printed cotton in check pattern formed by repetition of dates 1776 and 1876, made for and worn by donor in year of his birth, 1876 (131830).

MCKNIGHT, F. B., Puerto Castilla, Spanish Honduras: Votive celts, beads, and a disk, all of green talc,

collected near Puerto Castilla by donor (133100).

McLEAN, Mrs. LUCILLE S., Shrub Oak, N. Y.: 3 mollusks from Florida (129852).

McLEOD, KENNETH, Jr., Klamath Falls, Oreg.: 12 insects (130302).

McMANUS, Capt. T. F., Milton, Mass.: Block models of two fishing schooners designed by donor, the *James S. Steele*, designed in 1889 and built in 1892, and the knockabout *Helen B. Thomas*, designed and built in 1902 (131237); an oil painting, made about 1886, of the schooners *John H. McManus* and *Carrie E. Phillips*, winners of the first (1886) and second (1887) "fishermen's races", respectively (133538).

McMURTRY, E. P., Pasadena, Calif.: 50 pictorial photographs for exhibit February 1935 (132518, loan); 3 pictorial photographs (133954).

MEARNS, Mrs. E. A., Circleville, Ohio: Oak camp table and shelf used by Col. Theodore Roosevelt during the Smithsonian African expedition, 1909–10, 1 mollusk, 3 eggs of African birds, and 5 nests of an African moth (131473).

MELL, Dr. C. D., New York City: 1 plant from Yucatan (131362): 2 plants from Campeche, Mexico (132420, 133053).

MENSING, ROBERT, New York City: 10 crabs, 7 hermit crabs, 15 shrimps, 2 parasitic isopods, 2 clusters of barnacles, 2 echinoderms, and a number of mollusks (132385).

MENTZ, Mrs. G. W. (See under Mrs. T. M. Luby and Lt. Comdr. G. F. Mentz.)

MENTZ, Lt. Comdr. G. F., Washington, D. C.: (Through Mrs. G. W. Mentz) Military uniforms and accessories owned by Brig. Gen. Francis F. Millen of the Mexican Republic Army during the war between France and Mexico, 1862–67, and 2 decorations awarded him by the Mexican Government for service during that conflict (133037).

MERCK & Co., INC., Rahway, N. J.: Model of a 16th century medicine-making laboratory (133948).

MERGENTHALER LINOTYPE Co., Brooklyn, N. Y.: 1 Mergenthaler linotype, model no. 9, with accessories and photographs of other machines (134908, permanent loan).

MERRELL, ELINOR, New York City: 34 specimens of toiles de Jouy, French printed cottons of 18th and early 19th centuries; a photostat showing Franklin Peace Medal medallions; and a book, "Painted and Printed Fabrics", by Clouzot and Morris (131255, loan).

MERRITT, G. E., Washington, D. C.: 1 fossil cetothere skull from the Choptank or St. Marys formation at Purgatory, south of Cove Point, Md. (130597).

MERRITT, NANCY W., Towson, Md.: Gut parka made by Eskimos of Nunivak Island, Alaska, and collected by Dr. S. W. Merritt (133847).

MESLER, R. D. (See under Smithsonian Institution, National Museum; Dr. G. A. Cooper; and Charles Shafer.)

METCALF, Senator and Mrs. J. H., Washington, D. C.: Carved slate tray made by Haida Indians of Queen Charlotte Islands, British Columbia (133560).

METROPOLITAN LIFE INSURANCE Co., New York City: 4 original paintings introducing the series of health panels covering the subjects "History of Health", "Personal Hygiene", Health of the Family", and "Diseases and Statistics" (131829).

MEYER, ADELPHIA, Muncie, Ind.: About 80 land shells from Tennessee (134793).

MEXÍA, Mrs. YNES, Berkeley, Calif.: 23 plants from Mexico (130472).

MEXICAN GOVERNMENT, *Instituto Geologico*, Mexico, D. F.: 8 Mexican meteorites (132454, exchange).

MICHIGAN, UNIVERSITY OF, Ann Arbor, Mich.:

Department of Botany: 415 plants from Mexico and Central America (131560, 131760, 133569, 134773; exchange); (through Prof. H. H. Bartlett) 1,626 plants from Sumatra (131579, 132708; exchange); 821 plants from India (132140, 132700, 132750, 133967; exchange); (through C. L. Lundell) 206 plants from British Honduras and Guatemala (133814, exchange); 169 plants from British Honduras (131889, 132331, 132981, 133129, 133570, 134235, 134864; exchange).

Department of Zoology: (Through Mrs. H. T. Gaige) 1 lizard from Curaçao (130479); (through Dr. Calvin Goodrich) about 680 mollusks collected by H. B. Baker on Leeward Islands (131835, exchange); (through Prof. P. S. Welch) 45 insects (132139); 210 fresh-water shells (13 lots) collected by P. de Mesa in the Philippines (134496).

Museum of Paleontology: 22 casts of types of Devonian (Traverse) brachiopods (131633).

MIDDLETON, GEORGE, Washington, D. C.: 62 hand-made laces, selected to illustrate use of diversity of materials, made at Le Puy-en-Velay, Haute Loire, France, in 1929 (134079).

MILLER, Dr. A. K. (See under State University of Iowa.)

MILLER, G. S., Jr., Washington, D. C.: 2 hairy-tailed moles from Peterboro, N. Y. (131175). (See also under Smithsonian Institution, National Museum.)

MILLER, H. W., Nogales, Ariz.: 2 specimens of molybdenum from Mexico (134588).

MINERAL SOCIETY OF SAN DIEGO, CALIF.: Collection of representative minerals from San Diego (132665).

MINERALOGISKE OG GEOLOGISKE MUSEUM, Copenhagen, Denmark: 4 specimens of new minerals from Greenland (133882, exchange).

MINGTOY SILK MILLS, INC., New York City: Series of 3 specimens showing process of screen-printing; a partly woven fabric showing warp threads as they appear before weaving; and 9 samples of Mingtoy crepe, a washable, all-silk, piece-dyed fabric (132761).

MINIO, Dr. M. (See under Museo Civico di Storia Naturale.)

MINNESOTA, UNIVERSITY OF, Minneapolis, Minn.: 77 plants from Minnesota (131578, exchange).

MISSISSIPPI STATE COLLEGE, State College, Miss.: (Through R. E. Hutchins) 1 scorpion from Mississippi (130424).

MISSOURI BOTANICAL GARDEN, St. Louis, Mo.: 269 plants (130198, 134681); (through Dr. J. M. Greenman) 1 plant from Texas (131220, exchange).

MITCHELL, H. E., St. Stephen, S. C.: Potsherd from Santee Swamp, Berkeley County, S. C. (131418).

MITMAN, Mr. and Mrs. C. W. (See under Mrs. T. H. Dawson.)

MONCURE, MARGARET, Rectory, Va.: 1 green heron (130027).

MONEYMAKER, B. C., Knoxville, Tenn.: 40 Silurian brachiopods from near Bridgeport, Ala. (130178).

MONTANA, HISTORICAL SOCIETY OF, Helena, Mont.: 5 fossil figs from near Circle, Mont. (131383).

MONTANA, STATE UNIVERSITY OF, *Geological Museum*, Missoula, Mont.: Types of Mississippian crinoids (127436, exchange).

MONTGOMERY, ARTHUR, New York City: 4 topaz crystals from Devils Head, northwest of Colorado Springs, Colo. (132169); 10 twin crystals of orthoclase from Nevada (133793).

MONTREAL, UNIVERSITY OF, *Department of Biology*, Montreal, Quebec: (Through Dr. H. Prat) about 25 barnacles (3 lots) from Bermuda (131440).

MOORE, C. E., Memphis, Tenn.: 10 mosses from Tennesee (132494).

MOORE, D. M. (See under University of Arkansas.)

MOORE, Dr. EMMELINE, Albany, N. Y.: 25 shrimps (134276).

MOORE, H. D. B. B., Norfolk, Conn.: Bronze medal commemorating 300th anniversary of founding of Connecticut in 1635 (132977).

MOORE, Dr. R. D., Washington, D. C.: 2 books, "Crutches for Sale" and "Picturesque Kirksville", pertaining to history of healing art, for osteopathic collection (130448). (See also under Downing Osteopathic Group.)

MORGAN, B. M., Washington, D. C.: 1 star-nosed mole from Stafford County, Va. (130319). (See also under Dave Young.)

MORGAN, P. L., Lynchburg, Va.: Scale model of the DeWitt Clinton locomotive and train of tender and 3 coaches, made by lender (134409, loan).

MORRIS, A. W., Parral, Mexico: Samples of wood tin from a stream bed in Mexico (131632).

MORRISON, B. Y. (See under U. S. Department of Agriculture, Bureau of Plant Industry.)

MORRISON, Miss E. J., Washington, D. C.: 1 print, "The Daguerreotypist", a reprint from Godey's Lady's Book (132682).

MORSE, FLORENCE C., Cambridge, Mass.: (Through Mabel E. Crissey) Ethnological specimens, mainly objects obtained in 1885 among Osage Indians of Indian Territory (130527).

MORTON, C. V., Washington, D. C.: 10 plants from California collected by Mrs. A. B. McCray (131869).

MOSS, Col. J. A. (See under James Montgomery Flagg.)

MULAIK, STANLEY, Edinburg, Tex.: 1 lizard (133880).

MUNRO, J. A., Nanaimo, British Columbia: 32 land and fresh-water mollusks from Alberta (132403).

MURBARGER, W. B., Westport, Calif.: 1 salamander (132693).

MURIE, W. C., Cedar City, Utah: 4 specimens of lodestone from mountains west of Cedar City (133043).

MURPHY, GEORGE, INC., New York City: (Through C. E. Dunn) 1 Belcolor 5-by-7-inch transparency (132135).

MUSEO CIVICO DI STORIA NATURALE, Venezia, Italy: (Through Dr. M. Minio) 7 sponges (132070).

MUSEO NACIONAL, San José, Costa Rica: 28 fishes from Costa Rica (131611); 4 plants from Costa Rica (131898).

MUSEO NACIONAL DE PANAMA, Panama, Panama: 5 insects and 13 mollusks from Panama (131006).

MUSEUM OF THE AMERICAN INDIAN, New York City: Miscellaneous lot of bird, human, and animal bones and some shells (131885).

MUSÉUM NATIONAL D'HISTOIRE NATURELLE, Paris, France: 2 birds (133125, exchange).

MUSGRAVE, P. N., Fairmont, W. Va.: 12 insects (types, allotypes, and paratypes) (132170).

MYER, GERTRUDE W., Washington, D. C.: Large point lace shawl (130180, bequest).

MYERS, Dr. G. S., Washington, D. C.: 4 fishes (131620); 2 fishes of a new genus and species from western Cuba (130982); 3,359 fishes (including 2 cotypes) (131034, 132311); 5 Brazilian fishes (131581); 17 fishes from India (134783); (in cooperation with E. W. Bailey) 371 fishes, 5 crayfishes, 1 insect, and 2 salamanders from tributaries of the Mattaponi and Rappahannock Rivers, Va., and of the Potomac and Patuxent Rivers, Md. (134545); (in cooperation with E. D. Reid) 166 fishes and 15 crustaceans from southern Maryland (134486).

MYERS, W. J., Takoma Park, Md.: 1 young box turtle from Takoma Park (131724).

NARROW FABRICS CO., Reading, Pa.: 10 specimens illustrating uses of viscose rayon in manufacture of artificial horsehair, of laces, and of braided shoe-laces (134719).

NATIONAL FOLDING BOX CO., New Haven, Conn.: 2 molded pulp containers for dispensing lubricating oil, made by the Drake process (134629).

NATIONAL GEOGRAPHIC SOCIETY. (See under Dr. Raoul Odin.)

NATIONAL RIFLE ASSOCIATION OF AMERICA, Washington, D. C.: (Through F. C. Ness) Samples of 15 cabinet woods from various regions (134971).

NATURAL HISTORY SOCIETY OF MARYLAND, Baltimore, Md.: 2 specimens of sepiolite from Bare Hills, near Baltimore, and 1 of deweylite from Soldiers Delight, Md. (132747).

NATURHISTORISCHES MUSEUM, Vienna, Austria: 55 plants collected in China by Dr. H. Handel-Mazzetti (131215, exchange).

NAVY, U. S. DEPARTMENT OF THE: The supercharger used on engine of Lt. Apollo Soucek's XF3WH airplane when he made a world-record altitude flight of 43,166 feet in 1930 (115549); special flying clothing used by Lt. Soucek when establishing world altitude record of 39,144 feet with a Wright Apache plane in 1929 (131497); a Campbell-Bennett aperiodic compass used by Admiral Byrd during his flight over the North Pole in 1926 (134187).

NEBRASKA, UNIVERSITY OF, Lincoln, Nebr.: (Through Prof. R. J. Pool) 227 plants from Nebraska (134913, exchange).

NEEDLER, A. W. H., Ellerslie, Prince Edward Island: 1 crab (130041).

NEILD, E. F., Shreveport, La.: Fragment of Pueblo pottery found in a small mound in Catahoula Parish, La. (131597).

NESBITT, H. F., Washington, D. C.: Right tympanic bulla of a humpback whale, right tympanic bulla of a blue whale, skin of penis of a blue whale, 2 blades of baleen of finback whale and whale barnacle (133827).

NESS, F. C. (See under National Rifle Association of America.)

NEVADA-MASSACHUSETTS CO., INC., Mill City, Nev.: 2 specimens of tungsten ore from Nevada (134189).

NEWCOMEN SOCIETY, London, England: Chaplet presented in honor of the centennial anniversary of birth of Samuel P. Langley, secretary of the Smithsonian Institution 1887–1906 (130140).

NEWELL, Dr. NORMAN, Lawrence, Kans.: 1 echinoid from Pennsylvania strata of northern Oklahoma (132200).

NEW YORK BOTANICAL GARDEN, New York City: 1 plant from Brazil (120958, exchange); 1,255 plants from eastern Asia (132150); 1 plant from Ceylon (132780, exchange); 292 plants from West Indies (133017, 133832, 134046; exchange); 6 ferns from Florida (133132, exchange); 2 ferns (134100, exchange); 7 plants from Puerto Rico (134159, exchange); 1 plant from Cuba (134579, exchange); 6 photographs of plants, chiefly types (134914, exchange).

NEW YORK STATE COLLEGE OF AGRICULTURE, Cornell University, Ithaca, N. Y.: 157 plants from eastern New York (134707, exchange).

NININGER, H. H., Denver, Colo.: 1 Tulia meteorite from 4 miles southwest of Kress, Tex. (133559, exchange); fragment of the Bruno, Saskatchewan, meteorite (hexahedrite), 17½ grams, and 1 cast of the entire meteorite (133633).

NOREN, C. A., Fresno, Calif.: 2 specimens of andalusite altered to muscovite from Fresno (131551).

NORRIS, Maj. C. S., Lansing, Mich.: Bronze medal of type awarded by Michigan for service during Spanish American War and the Philippine campaign (130932); bronze badge of the Sons of Union Veterans of the Civil War (133093).

NORTH DAKOTA, UNIVERSITY OF, Grand Forks, N. Dak.: 3 moths from North Dakota (129817).

NORTHERN STATES POWER CO., Minneapolis, Minn.: (Through Henry Grenacher) An old Westinghouse dynamo, no. 520 (about 1888) and 2 balance-type voltage regulators (111010).

O'BRIEN, C. A., Jr., Bunkie, La.: 3 projectile points from Evergreen, La. (134469).

ODIN, Dr. RAOUL, Paja, Panama: (Through National Geographic Society) 1 beetle from Panama (132176).

OHIO LEATHER CO., Girard, Ohio: 122 small specimens of embossed calf leather showing different grains and finishes (131917).

OKLAHOMA AGRICULTURAL COLLEGE, Stillwater, Okla.: (Through Prof. H. L. Featherly) 1 fern from Oklahoma (131374).

OKLAHOMA, UNIVERSITY OF, Norman, Okla.: (Through G. J. Goodman) 80 plants from Oklahoma (134242, exchange); 6 ferns from Oklahoma (134856).

OMAN, PAUL, Washington, D. C.: 3,000 insects from New England (132393).

ONTARIO AGRICULTURAL COLLEGE, Guelph, Ontario: (Through Prof. A. W. Baker) 3 beetles described by W. S. Fisher (1 type and 2 paratypes) (130920); (through Prof. L. Caesar) 24 insects (131731).

OPA-LOCKA ZOOLOGICAL GARDEN, Opa-Locka, Fla.: 3 hog-nosed snakes from near Opa-Locka (133431).

ÖPIK, Prof. A., Tartu, Estonia: 21 Ordovician brachiopods from Estonia (132453, exchange).

ORSINGER, FRED. (See under U. S. Department of Commerce, Bureau of Fisheries.)

ORTEGA, J. G., Sinaloa, Mexico: 94 plants from Mexico (133853).

OSBORNE, N. M., Norfolk, Va.: Court coat and waistcoat worn by Hon. Richard K. Meade, U. S. minister to Brazil, 1857–61 (134839).

OSTERHELD, Mrs. C. (See under Mrs. H. R. Griffin.)

OSTERHOUT, G. E., Windsor, Colo.: 1 plant from South Dakota (130488, exchange).

OSTRANDER, C. W., Baltimore, Md.: 1 specimen of chromite from Bare Hills, Md. (133532).

O'TOOLE, Mrs. FLORA, Winthrop, Mass.: A Roberts airplane engine of 1911, used in an early American-made Bleriot XI type monoplane (131718).

OWEN, Mrs. H. S., Stonington, Conn.: 1 daguerreotype (134172).

OWEN, Col. L. J., Charlottesville, Va.: 1 molesnake from Charlottesville (130303).

OWENS-ILLINOIS GLASS CO., Toledo, Ohio: 2 pairs of drug-store show bottles (132409).

PAN AMERICAN AIRWAYS, INC., New York City: A Hamilton-Standard metal airplane propeller used on airplanes of donors for over 350,000 miles of flying in Mexico and Central America (130512).

PAN AMERICAN UNION, Washington, D. C.: (Through Dr. J. L. Colom) 1 vial of coffee-bean beetles (133840); 8 beetles (134102).

PARISI, Capt. PHILLIP, Gloucester, Mass.: (Through F. E. Firth) 1 30-pound horse mackerel from Ipswich Bay, Mass. (130629).

PARKE, DAVIS & CO., Detroit, Mich.: 122 specimens of pharmaceutical forms illustrating important classes in which medicinal materials are prepared for administration (134667).

PARKER, L. B. (See under U. S. Department of Agriculture, Bureau of Entomology and Plant Quarantine.)

PARKER, Mrs. MARY S. (See under Estate of Maj. Gen. G. O. Squier.)

PATCH, E. L., Co., Boston, Mass.: 14 specimens and 28 photographs illustrating steps in manufacture of cod-liver oil (132326).

PATTERSON, ROBERT, Jr., Dayton, Ohio: 2 bear skulls from Admiralty Island (133137).

PAUL, Rev. Brother, Panama, Panama: 58 plants from Panama (130907); 85 plants from Panama (132159).

PAULL, Mrs. G. H., Washington, D. C.: A blue-and-white double-woven coverlet with "Ohio, 1838" woven in the corners, and a Paisley shawl with red center (134186, loan).

PAWSLOWSKI, Dr. B., Krakow, Poland: 32 plants (132470, exchange).

PAXON, A. Y., Norfolk, Va.: 1 ribbon-snake from Norfolk (131431).

PEARSE, Dr. A. S., Durham, N. C.: 5 porcellanid crabs (133071).

PECK, FLORENCE, South Bend, Ind.: 1 pine mouse from Indiana (134624).

PEEBLES, R. H. (See under U. S. Department of Agriculture, Bureau of Plant Industry.)

PEEK & VELSOR, INC., New York City: Specimen of laurel leaves (131369).

PENICK, S. B., & Co., New York City: 3 specimens of botanical drugs: Jobs-tears, cubeb berries, and *Cocculus indicus* (131547).

PENLAND, Prof. C. W. T. (See under Colorado College.)

PENNSYLVANIA, UNIVERSITY OF, *Department of Botany*, Philadelphia, Pa.: 120 plants, chiefly from Delaware (132709, exchange).

PEPPERELL MANUFACTURING CO., Boston, Mass.: 5 crib blankets, the tufted design appliqued by a special patented machine (134086).

PERHAM, E. A., Washington, D. C.: Sail plan of 7-masted steel schooner *Thomas W. Lawson*, 1902 (134411).

PERKINS, C. B., San Diego, Calif.: 54 isopods (131177).

PERRY, S. H., Adrian, Mich.: 1 specimen of the Paragould stone meteorite (133428); 1 cast of the Woods Mountain, N. C., meteoric iron (134976); 1 slice of the Toluca meteoric iron with silicate inclusions, weighing 2,000 grams (134984, exchange).

PESTA, Dr. OTTO, Vienna, Austria: 2 shrimps (131235).

PETERSON, Mrs. E., Miami, Fla.: 12 ferns from Mexico (131944).

PETROCELLI, Mrs. MARY O., Brooklyn, N. Y.: 1 dicoscope and 24 views of 1925 Paris Exposition (134485).

PHILADELPHIA, PA., PHOTOGRAPHIC SOCIETY OF: 60 pictorial prints for exhibit November 1934 (131855, loan).

PHILLIPS, Dr. E. P. (See under Union of South Africa.)

PICKEL, Prof. D. B., Pernambuco, Brazil: 28 plants from Brazil (130477, 131743, 134682).

PICKENS, A. L., Greenville, S. C.: 1 plant from South Carolina (133061).

PIERCE, R. G. (See under U. S. Department of Agriculture, Bureau of Entomology and Plant Quarantine.)

PIERCE, S. C., Arcadia, Fla.: 1 elephant tooth from Pliocene along Peace River, De Soto County, Fla. (133632).

PILGER, Dr. R. (See under Botanisches Museum.)

PILSBRY, Dr. H. A. (See under Academy of Natural Sciences of Philadelphia.)

PINTO, Dr. OLIVIERO, Sao Paulo, Brazil: 4 bird skins and 2 mammal skins (135002, exchange).

PIRLOT, Dr. JEAN M., Liege, Belgium: 8 amphipods (131624, exchange).

PIZZINI, ANDREW, Washington, D. C.: 260 amphipods, 95 isopods, 3 copepods, 1 crab, 12 hydroids, 12 bryozoans, 6 anemones, 40 marine annelids, 4 barnacles, and 1 worm (130210, 131390, 131449, 132217, 132462, 133107); about 20 isopods, 300 amphipods, 1 barnacle, 25 hermit crabs, 12 crabs, 30 hippas, 2 bryozoans, and 10 starfishes collected near Fernandina, Fla., 1934 (130478); 200 amphipods from mouth of South River, Anne Arundel County, Md. (130615).

PLACE, JOSEPH, Chicago, Ill.: A polychrome block-printed fabric made early in 19th century and originally used to curtain a 4-poster bed (132180).

PLATT, F. R., Berkeley, Calif.: 35 beetles (2 species) (132746).

PLUMMER, Mrs. HELEN J., Austin, Tex.: Metatypes of 2 new genera of Eocene Foraminifera (131028).

POITEVIN, EUGENE, Jr., Ottawa, Ontario: 1 specimen of ashtonite from British Columbia (134495).

POLLAK, C. J., Chicago, Ill.: Samples of invisible ink printing (134019).

POLLAK, LOUIS, Manchester, England: 1 Irix process color photograph (132721).

POMONA COLLEGE, Claremont, Calif.: 2 plants (130458, exchange); 500 plants from Mexico and Western United States (131888, exchange).

POND, SHEPHERD. (See under Boston Numismatic Society.)

PONTIUS, L. L., Circleville, Ohio: 317 plants from Ohio (133116, 134544).

POOL, Prof. R. J. (See under University of Nebraska.)

POPOV, Dr. V. B., Leningrad, U. S. S. R.: 19 bees (12 species), all named (133149, exchange).

PORTER, Prof. C. E., Santiago, Chile: 104 miscellaneous insects (129293).

POST OFFICE DEPARTMENT, U. S.: 12 sets of specimen stamps, etc. (1,448 specimens), received by Post Office Department from International Bureau of the Universal Postal Union, Berne, Switzerland (130788, 131054, 131426, 131821, 132677, 133038, 133546, 133870, 134402, 134837); 3 each of the following United States stamps issued in 1934: 6-cent airmail; 16-cent airmail special delivery; and 1-, 2-, 3-, 4-, 5-, 6-, 7-, 8-, 9-, and 10-cent national park (131933); 3 imperforate sheets of 6 1-cent national park stamps and 3 imperforate sheets of 6 3-cent national park stamps (36 specimens) (131956); a restored earthenware bowl of the Pueblo II period, probably from southwestern Colorado (134185); 3 3-cent Connecticut Tercentenary stamps (134690); 3 each of the 3-cent Maryland Tercentenary and the 3-cent Mothers' Day stamps issued in 1934 (130188); 2 Lincoln negatives, broken in parcel post (132991).

POST, W. M. (See under Blanche E. Jackson.)

POULSEN, Dr. CHRISTIAN. (See under Universitetets Mineralogiske Museum.)

PRAIRIE FARMER RADIO STATION WLS, Chicago, Ill.: 1 rack of speech input equipment, part of the original 500-watt broadcast transmitter installed at WLS in 1924 (134544).

PRAT, Dr. H. (See under University of Montreal.)

PRATT, C. A. (See under T. V. Little.)

PREBLE, E. A., Washington, D. C.: 10 plants from northwestern Canada (131854).

PREER, JOHN, Jr., Ocala, Fla.: 1 fly on slide from Florida (130387).

PREFONTAINE, Prof. GEORGES, Montreal, Quebec: 1 basket-star (131557).

PRESNELL, Capt. R. T., Washington, D. C.: 2 Spanish American copper coins of early 16th century (132325).

PRICE, J. W., Lancaster, Pa.: Collection of Lower Cambrian fossils and 3 Ordovician starfishes from Pennsylvania (134816, exchange).

PRINCE, Gov. L. B., ESTATE OF, Santa Fe, N. Mex.: 3 stone idols (frauds) carved from tufa (133947).

PRINCETON MUSEUM OF ZOOLOGY, Princeton, N. J.: 6 Patagonian birds (134778, exchange).

PROVIDENCE CLEARING HOUSE ASSOCIATION, Providence, R. I.: Scrip issued by donor in March 1933 and a pamphlet describing it (6 specimens) (126698).

PURDUE UNIVERSITY, Lafayette, Ind.: 53 miscellaneous insects (90578).

RAASCH, GILBERT, Madison, Wis.: 115 Upper Cambrian brachiopods from Wisconsin (131170).

RAFFLES MUSEUM AND LIBRARY, Singapore, Straits Settlements: 24 amphipods, including type of a new species (130025); (through M. W. F. Tweedie) 50 crabs (131001).

RALLS, Mrs. N. M., Chevy Chase, D. C.: 1 black-throated blue warbler (134440).

RANCHO SANTA ANA BOTANIC GARDEN, Anaheim, Calif.: 58 plants from Western United States (134266).

RANKIN, Hon. J. E. (See under Vardaman Timmons.)

RAPP, A. F., Washington, D. C.: 3 specimens of zinnwaldite from Amelia, Va. (131408).

RAPP, F. A., Washington, D. C.: Cone of a fossil conifer from near Washington (134593).

RAPPLEYE, ROBERT, Washington, D. C.: 2 plants from District of Columbia (131965).

RASMUSSEN, AXEL, Wrangell, Alaska: 3 human skulls, one accompanied by a skeleton, collected near Wrangell (132307); fragmentary human skeleton from Shustack Point at south edge of Wrangell Harbor (134890).

RAWLINSON, ELIZABETH S., Staunton, Va.: 1 fern from Virginia (130324); 74 plants from Virginia (130419, 130621, 131563, 131866).

RAWSON, Dr. G. W., Detroit, Mich.: 13 Lepidoptera from Michigan (130408).

RED RIVER LUMBER CO., Westwood, Calif.: 22 specimens showing sandblasted picture panels and other uses of sugar pine and western yellow pine (134962).

REED, Prof. C. T. (See under Texas College of Arts and Industries.)

REED, Prof. E. L., Lubbock, Tex.: 206 plants from Texas and New Mexico (130271, 131352).

REED, Prof. ERNEST. (See under Syracuse University.)

REEVES, J. E., Washington, D. C.: Model, $\frac{1}{16}$ size, of the P. W. 8 airplane in which Lt. Russell Maughan made a transcontinental flight between dawn and dusk, June 23, 1934 (134823).

REHDER, Dr. H. A., Washington, D. C.: 148 marine and fresh-water mollusks (16 lots) from Barnstable County, Mass. (130992).

REID, E. D., and BOYDSTUN, G. M., Washington, D. C.: 528 fishes, 3 frogs, 1 leech, 1 snake, 1 newt, 1 salamander, 1 turtle, 16 crayfishes, 13 tadpoles, and 2 larvae (131218). (See also under Dr. G. S. Myers.)

RESSER, Dr. C. E. (See under Smithsonian Institution, National Museum.)

RHOADES, WILLIAM, Indianapolis, Ind.: 9 plants (131355, 131769, exchange).

RHODE ISLAND STATE DEPARTMENT OF AGRICULTURE, *State Insectary*, Kingston, R. I.: 2 beetles, 2 flies, and 1 moth (130024, 130563, 130601); (through G. A. Thompson, Jr.) 12 insects from Rhode Island (131382).

RICE, HOWARD, Hartline, Wash.: 7 fossil fresh-water shells from near Boise, Idaho (130489).

RICHARDS, Dr. A. G., Rochester, N. Y.: 25 Lepidoptera (134249, exchange).

RICHARDS, Dr. H. G., Trenton, N. J.: 12 Pleistocene bryozoans from Maryland and South Carolina (134453).

RICHARDS, O. W. (See under Imperial College of Science and Technology.)

RICHARDSON, F. H., Scarsdale, N. Y.: "Operator's Handbook of Projection", 1910, one of the earliest projection texts ever written (134894).

RICKER, P. L. (See under U. S. Department of Agriculture, Bureau of Plant Industry.)

ROBA, R. P. (See under Federacion Nacional de Cafeteros de Colombia.)

ROBERTS, C. C., Belmont, Mass.: 11 ethnological specimens from west coast of Africa (134245).

ROBERTS, L. B., New York City: 4 plants from Ethiopia (130203).

ROBINSON, Dr. B. L. (See under Harvard University, Gray Herbarium.)

ROBLES, ING., Hitzuco, Puebla, Mexico: 5 specimens of mercury minerals from Huahuaxtla, Mexico (134983).

ROBLES, ROMERO, Guerrero, Mexico: 1 large specimen of livingstonite (132449).

ROBSON, Mrs. ELINOR D., Balboa Heights, Canal Zone: 7 crabs from Panama (129182).

RODDY, Dr. H. J., Lancaster, Pa.: 7 Lower Cambrian trilobites from near Lancaster (132483).

RODMAN, Admiral HUGH, Washington, D. C.: 1 rattlesnake skin (134233).

ROEBLING FUND, Smithsonian Institution: The Striegau collection of minerals and 3 specimens of apatite (129775); specimen of meteorite from Tryon, Nebr. (2,200 grams) (130868); 2 specimens of calcite from Santa Fe mine, Hockerville, Okla. (131772); 1 iron meteorite from central Wyoming (131773); 1 specimen of diaptase (131874); 1 slab of the Karooda meteorite and 1 specimen of sahlinite (131875); 1 specimen of meteorite from near Santa Fe, N. Mex. (131897); 1 slice of the Gruver, Tex., meteorite and the Passamonte stone meteorite (131962); collection of minerals from George F. Kunz estate (132339); 450 specimens of rocks, minerals, and ores collected in Mexico by Dr. W. F. Foshag in 1934 (132452); 1 slice of the Weldna, Colo., meteorite (1,072 grams), fragment of the Sioux County, Nebr., meteorite and 3 fragments of the Passamonte, N. Mex., meteorite (132680); 1 specimen of selenium from Arizona (132681); Kearney, Nebr., and Harrisonville, Mo., meteorites (132751); fragments of meteorites from near Lake Labyrinth, South Australia (133073); 1 slice of Ogallala, Nebr., iron meteorite (135 grams) (133604); 1 slice of Ulysses, Kans., meteorite (134023); 1 meteorite from Osseo, New Ontario, Canada (134040); half of the Carthage, N. C., meteorite (134549); 1 specimen of the Hedjaz meteorite (134683); Gretna stone meteorite (134897).

ROGERS, C. R., Lake City, Kans.: (Through Dr. C. E. Burt) 2 soft-shelled turtles from Lake City (130974).

ROGERS, DEWEY, Lake Placid, Fla.: 1 moth from Florida (130216).

ROGERS, E. E., Washington, D. C. (See under Estate of E. B. Baldwin.)

ROGERS, H. M., Toronto, Ontario: 26 mollusks from Canada (133547).

ROHRER, JOSEPHINE A., Washington, D. C.: Engraved brass jewel box and an enamel and gold brooch set with gems (134825).

ROHWER, K. S., Clarendon, Va.: 3 lots of arrowheads and blades from Fairfax County, Va. (131543).

ROLFS, A. R., Moorestown, N. J.: 49 flies (130276); 13 flies representing 9 species in genus *Tabanus* (133630).

ROOKSBY, ELLEN, Pasadena, Calif.: 3 living plants from California (130439).

ROSEBOOM, L. E., Ancon, Canal Zone: 1 type and 1 paratype slide of a mosquito (133147).

ROUNDY, P. V., Washington, D. C.: 37 fresh-water shells from Florida (134043.)

ROYAL NATURAL HISTORY MUSEUM, Stockholm, Sweden: 1 babbling thrush (131341, exchange).

RUEHL, VICTOR, Caldwell, N. J.: 32 plants from Bolivia and Guatemala (132224, 133077, 134039).

RUHE, LOUIS, INC., New York City: 1 Saiga antelope from Kalmuck Steppe, U. S. S. R. (132309).

RUNYON, ROBERT, Tamaulipas, Mexico: 23 plants from Arkansas (131751).

RUSSELL, PAUL. (See under U. S. Department of Agriculture, Bureau of Plant Industry.)

RUTGERS UNIVERSITY, New Brunswick, N. J.: (Through Prof. M. A. Chrysler) 1 plant from New Mexico (133608, exchange).

RUZICKA, RUDOLPH, Dobbs Ferry, N. Y.: 17 wood-block prints in color (130211.)

RYAN, E. E., Beech Grove, Ind.: 60 mollusks from Indiana, Wisconsin, and Oregon (131423).

SABROSKY, C. W., Manhattan, Kans.: 2 cast skins of insect larvae and 1 gall (132134).

SAEGMULLER, F. B., Clarendon, Va.: Copperhead snake from Little Falls Road, Arlington County, Va. (131438).

SAGINAW FURNITURE SHOPS, Saginaw, Mich.: 1 small board sample of knotty aspen wood (134481).

ST. JOHN, E. P., Conway, N. H.: 2 ferns from Florida (130988).

ST. JOHN DEL REY MINING CO., LTD., Rio de Janeiro, Brazil: 8 mineral specimens from Morro Velho mines, Minas Geraes, Brazil (134987).

ST. PETERSBURG (FLA.) CHAMBER OF COMMERCE. (See under Clearwater Chamber of Commerce.)

SAKAI, T., Sizuoka-ken, Japan: 4 crabs (129990).

SAN DIEGO (CALIF.) SOCIETY OF NATURAL HISTORY: (Through S. A. Glassell) 40 crabs from Rocky Point, Sonora (131441); 1 land planarian (132322).

SARGENT, F. H., San German, Puerto Rico: 506 plants from Puerto Rico (134675, 134911).

SAUNDERS, F. E., Leesburg, Va.: 1 exhibition specimen of diabase from Virginia (131344).

SAVICZ, Dr. V. P. (See under Botanical Institute of the U.S.S.R. Academy of Sciences.)

SAYLOR, L. W., Berkeley, Calif.: 3 beetles (134616).

SCHADE, Dr. F. H., Villarrica, Paraguay: 5 mollusks from Paraguay (134479).

SCHALLER, Dr. W. T., Washington, D. C.: 20 specimens of permatite from Pala, Calif., and 3 of borax ore from Kramer, Calif., collected for the Museum (130021); 47 minerals from New Jersey and elsewhere (130529).

SCHAUS, Dr. WILLIAM. (See under E. L. Bell and W. J. Coxey.)

SCHENCK, Dr. H. G., Stanford University, Calif.: 2 fossil crabs from Danian formation (132755).

SCHENK, E. T., Stanford University, Calif.: Paratype of a new genus and species of ammonite (132465).

SCHLESCH, Dr. HANS, Copenhagen, Denmark: 42 mollusks from Denmark (132480); 178 land and fresh-water mollusks (133008).

SCHMID, E. S., Washington, D. C.: 1 ostrich (130317); 3 parrots (131190, 131198); 1 paraquet (131348); 1 bishop-bird (131913); 1 troupial-bird (132122); 1 red-cheeked cordon-bleu (132172); 1 lovebird and 3 canaries (132333, 132450, 134961).

SCHMIDT, Dr. K. P. (See under Field Museum of Natural History.)

SCHMITT, Dr. W. L. (See under Smithsonian Institution, National Museum.)

SCHNAUTZ, WALTER, Evansville, Ind.: 25 spiders (134047).

SCHOFF, H. L., Hamlin, N. Y.: Iron trade ax found at Bloomfield, N. Y. (134776).

SCHOFIELD, JOHN, Washington, D. C.: 73 fishes from Patuxent River opposite Benedict, Md. (130618).

SCHOTT, F. M., Bergenfield, N. J.: 1 beetle collected in drift debris in New York (131964, exchange).

SCHUCHERT, Prof. CHARLES, New Haven, Conn.: 2 rare brachiopods from Ottosee formation of eastern Tennessee (131937).

SCHULTZ, Dr. L. P. (See under University of Washington and Arthur Chapman.)

SCHUYLER & LOUNSBURY. (See under Mrs. H. P. Jones.)

SCRIPPS INSTITUTION OF OCEANOGRAPHY, La Jolla, Calif.: 53 fishes from San Diego, Calif. (130893); collection of mysids (132113).

SCULLEN, Prof. H. A., Corvallis, Oreg.: 3 insects (2 species) (134817, exchange).

SEARLES, Comdr. P. J., Pearl Harbor, T. H.: 8 pieces of ancient pottery from Panama, Pan pipe and flute from Ecuador, and commemorative figure from Panama (133789).

SEDGWICK MUSEUM, Cambridge, England: 141 brachiopods from the Silurian of England (126214, exchange).

SENCKENBERGISCHE NATURFORSCHENDE GESELLSCHAFT, Frankfort-am-Main, Germany: (Through Dr. F. Haas) 7 West Indian land shells, representing topotypes of specimens described by Dr. Weinland (131870, exchange).

SETZLER, F. M. (See under Smithsonian Institution, National Museum.)

SEVERIN, Dr. H. C., Brookings, S. Dak.: 1 axolotl from near Eureka, S. Dak. (130182).

SEXTON, MICHAEL, Jersey City, N. J.: 1 plant (131619).

SEYFFERT, Dr. FREDRICO, Chihuahua, Mexico: 1 specimen of native silver from Batopilas, Mexico (132456).

SHACKLETT, J. B., Chattanooga, Tenn.: Specimen of cultivated nut (132711).

SHAFER, CHARLES, Washington, D. C.: (Through R. D. Mesler) Navaho silver necklace and 2 18th-century English silver-case watches (134168).

SHANNON, R. C., Kavalla, Greece: 271 insects (133101, 133106; exchange).

SHARRER, M. R., York, Pa.: Stone ax found near Hathwood Dam along Susquehanna River between York and Lancaster, Pa. (130284).

SHEPPARD, A. C., Montreal, Quebec: 15 Lepidoptera (130994, 131209; exchange).

SHERWIN, C. ALLEN, Washington, D. C.: 1 drypoint etching (134076).

SHERWOOD HIGH SCHOOL SCIENCE CLUB, Sandy Spring, Md.: 158 fishes from Port Tobacco Creek near La Plata and the mouth of Mattawoman Creek near Indian Head, Md. (131636).

SHIELDS, BEULAH E., Alexandria, Va.: 16 land shells, including 1 topotype (134887).

SHILLINGER, Dr. J. E., Washington, D. C.: 5 insects from Alaska (130999).

SHIPTON, W. D., St. Louis, Mo.: 2 specimens of enargite from the Tristate district, 1 specimen of pyrite from Hanover, Ill., and 4 small twinned rhombohedrons of cinnabar from Arkansas (131914, exchange).

SHOEMAKER, Dr. D. N., Takoma Park, D. C.: 10 specimens of moss from Michigan (131603).

SHREVE, Dr. FOREST, Tucson, Ariz.: 100 plants from Palestine, 7 ferns from Mexico, and 17 plants from Lower California (132506, 134265, 134388; exchange).

SCHULTZ, Dr. L. P. (See under Arthur Chapman and Allan DeLacy.)

SHUPEE, G. C., San Antonio, Tex.: 1 batfish (131838).

SIKORSKY, I. I., Bridgeport, Conn.: Model, 1/40 size, of the Sikorsky S–42 seaplane *Brazilian Clipper* (133946).

SILOOK, PAUL, St. Lawrence Island, Alaska: Harpoon heads and other ivory artifacts, 2 bird skins, and 1 weasel skin, from St. Lawrence Island (131911).

SIMON, Dr. J. R., Superior, Wyo.: 3 nematodes (1 type) (132351, 134658).

SINGER SEWING MACHINE CO., New York City: Diorama with sound broadcasting equipment depicting the dramatic moment in the invention of the Singer sewing machine (131652, loan).

SLAWSON, Prof. C. B., Ann Arbor, Mich.: 1 specimen of sussexite from Michigan (133795).

SMALL, J. K., New York City: Photograph of plant from Florida (131755).

SMITH, C. E., Orlando, Fla.: 3 snails and 1 egg mass (132757).

SMITH, C. H., Jr., Sesser, Ill.: Model, $\frac{1}{8}$ size, of the Macchi-Castoldi-72 Italian seaplane that on October 23, 1934, established a world speed record of 440.681 miles an hour, piloted by Lt. Francesco Agello (134184, loan).

SMITH, Prof. C. P., San Jose, Calif.: 3 photographs of plant from Arizona (130204, exchange).

SMITH, Dr. H. M., Washington, D. C.: 2,400 insects, 637 bird skins, 1 bird skeleton, 3 bird eggs, 9 crustaceans, 7 leeches, 215 plants, 520 reptiles and amphibians, 436 mollusks, 116 mammals, and 13 ethnological specimens, all from Siam (129985); 93 reptiles, 1,350 fishes, 1,539 insects, 1,480 mollusks, 245 marine invertebrates, 1 starfish, 1 holothurian, 186 plants, 79 ethnological specimens, 29 mammals, 354 birds, 1 nest, and 1 egg, from Siam (132376); 12 bird skins (133012). (See also under Mrs. Emily J. Collins.)

SMITH, Mrs. J. H., Washington, D. C.: 1 fossil whale tooth (134627).

SMITH, Dean L. P. (See under Wesleyan College.)

SMITH, MAXWELL, Lantana, Fla.: 11 mollusks (126373).

SMITH, TRULA, Raven, Va.: 2 brachiopod shells from sub-Carboniferous rocks of Raven (130046).

SMITH, V. S., La Concepcion, Panama: 3 ants (132505).

SMITHSONIAN INSTITUTION: A handforged hacksaw frame (130510, deposit); photograph of a type specimen of a fern in the Jussieu Herbarium, Paris (131216, deposit); collection of paintings on tin showing coats of arms of 36 States of the Union (131741, deposit); 1 etching by Franklin T. Wood, given to the Associate Members of the Society of American Etchers, 1934–35 (132111, deposit).

Bureau of American Ethnology: Pottery fragments from Weeden Island, Fla., collected by D. L. Reichard, of Waynesboro, Pa. (130570); human skeletal material obtained through excavations conducted under Federal C. W. A. by Winslow M. Walker in California, and a skull and part of the skeleton of a badger (130576); skeletal material excavated from Peachtree Mound at Murphy, N. C. (132127); skeletal material obtained during archeological work at Ormond Beach, Fla., 1933–34, under C. W. A. (132168); collection of ethnological objects obtained from the Jivaro Indians of South America by J. Santiago Baca, of Mendez, Ecuador (132211); collection of archeological material obtained on mainland of Spanish Honduras and on nearby Bay Islands by Dr. W. D. Strong in 1933 (133314); skeletal material from Perico Island, Manatee County, Fla., collected by the C. W. A., 1933–34 (134994).

National Museum, collected by members of staff: Aschemeier, C. R.: 2,401 fishes from fresh waters of Florida, 50 crustaceans, 16 turtles, 14 leeches, and 16 insects (132839). Bartsch, Dr. Paul: Bird skeleton and 1 egg, small collection of fishes, turtle carapace, 4 frogs, 7 crustaceans, and 200 land and marine shells from Dismal Swamp and islands off Virginia capes, 1 salamander, and 1 insect (130295); collection of fishes, marine invertebrates, and 125 mollusks from mouth of Patuxent River, near Solomons Island, Md. (130334); collection of about 2,550 land and fresh-water mollusks and a few fishes from near Wilmington, N. C. (130799). Benn, J. H.: 2 exhibition slabs of diabase showing slickensiding from Traprock quarry, near Leesburg, Va. (131739). Clark, A. H.: 8 salamanders from Peaks of Otter, Va. (134806). Cloud, P. E.: 150 specimens of minerals from Pennsylvania, New Jersey, and Maine (131044). Cochran, Dr. Doris M.: Collection of mammals, birds, fishes, reptiles, amphibians, mollusks, echinoderms, marine invertebrates, ethnological specimens, and 3,471 insects from Brazil (132173). Cooper, Dr. G. A.: 30,000 fossil invertebrates from Middle Devonian of Michigan, southwestern Ontario, western New York, the Upper and Lower Devonian of Michigan, and Middle Ordovician of Ottawa, Ontario, and vicinity (131164); (with R. D. Mesler) 10,000 Paleozoic invertebrates from Virginia, Tennessee, and Arkansas and 17 land shells (4 species) from Arkansas (131920). Foshag, Dr. W. F.: 1,047 insects, together with fishes, reptiles, and 2 marine invertebrates from Chihuahua, Mexico (129926); projectile point and 2 lots of potsherds from 2 sites in Mexico (134881). Gazin, Dr. C. L.: Collection of fossil vertebrates from Pliocene and Pleistocene of Idaho made by 1934 expedition (128752). Henderson, E. P.: (In cooperation with the Canfield Fund) 1 lot of mineral specimens, including garnets, feldspar, zircons, actinolite, etc., from North Carolina (130427). Hrdlička, Dr. Aleš: Archeological and human skeletal material, mollusks, birds, 1 hypural bone of flatfish, and mammal specimens, including *Lutra* skulls, red-fox skulls, etc., collected on Kodiak Island, Alaska, 1934 (128956); 1 Alaska hermit thrush (131576). Miller, G. S., Jr.: 141 reptiles and amphibians (132236); 74 mammals, 42 plants, 11 insects, 5,000 mollusks, 1 ophiuran, 2 birds, 7 marine invertebrates, 4 fishes, archeological and wood samples, and 1 bird bone (132775). Resser, Dr. C. E.: 225 Ordovician invertebrates from southwestern Virginia (134782). Schmitt, Dr. W. L.: Collection of Crustacea, mammals, reptiles, birds and eggs, and a small collection of igneous rocks, taken while a guest of Capt. G. Allan Hancock on the 1935

Hancock Expedition to the Galapagos Islands and South America (131571). Setzler, F. M.: Archeological material collected in 1933 from 2 caves in Val Verde County, Tex., and 3 lots of bones (131050); archeological specimens from various sites in Georgia and Florida, collected in 1934 (134879).

National Museum, obtained by purchase: 5 reptiles from Texas (133557); Texas commemorative half-dollars struck in 1934 (125415); 16 mammals, 4 birds, 2 nests, 49 reptiles and amphibians, 6 mollusks, 1 crab, and about 1,000 insects from Indo-China (125707); 199 plants from Dominican Republic (125786); 25 North American mosses (126302); 967 plants from Brazil and Peru collected by Mrs. Ynes Mexía (128397); 67 New Guinea birds (129087); garter of buffalo hair interwoven with beads and quillwork (129507); 1,962 plants collected in Hispaniola by E. L. Ekman in 1929 (129991); 9 birds (skeletons) (130184); 56 Lepidoptera (130292); double oxyoke with unusual rack adjustment of distance between bows (130485); 1 incomplete skull from the Niobrara, Upper Cretaceous of Gore County, Kans. (130486); 88 insects from Madagascar and Celebes (130776); 9 birds of 7 forms new to Museum (130905); 1 air bladder of horse mackerel from New England coast (130905); 10 birds (132072); 100 Venezuelan plants (132093); color print on cloth (132148); 1 blanket and 6 sashes collected among the Tarahumare Indians of Mexico (132195); 34 isopods (22 species) in alcohol and 4 slides of isopods (132280); 116 fishes collected in Brazil by B. A. Krukoff (132335); wool and hair blanket handwoven in Kentucky before or during the Civil War (132352); 68 beetles from western South America (132392); 5 turtles (132402); elkskin showing the feats of Chief Washakie (132706); 50 small South American mammals, all rodents and marsupials (132713); 2 prints by Ploos van Amstel (132727); 25 United States mosses (133019); 36 beetles representing 36 species of Cetoniidae (133123); a 28-inch-square handkerchief map of Washington (copyrighted 1933) printed in brown on bleached cotton, inspired by a rare cloth map of the Capital City printed about 1792 (133145); 13 fossil mammals (133534); 1 photogravure of mezzotint, "The Executioner", after Prince Ruppert (133637); model, $\frac{1}{16}$ size, of the Valkyrie airplane, an English canard pusher monoplane of 1911 (133952); 47 beetles (134055); carved wooden mask made by Haida Indians of southeastern Alaska (134241); 1 Japanese golden eagle (134809); 469 ferns from Borneo (134989).

National Museum, made in Museum laboratories: Scale model of a wooden steam boiler used at the Center Square Pumping Station, Philadelphia, 1801–15 (130183); 2 casts each of 2 pottery vessels from a protohistoric Fort Ancient culture village site at Proctorville, Ohio (originals the property of B. E. McCown, Ironton, Ohio) (130533); 2 casts of a pottery vessel the fragments of which were recovered from Moncla Mound, Avoyelles Parish, La. (131151); model, $\frac{1}{16}$ size, of Burgess-Dunne seaplane, 1914 (131774); casts of 3 Babylonian tablets (132473); model, $\frac{1}{16}$ size, of an airplane designed and manufactured by the Curtiss Aeroplane and Motor Co., in 1923 for night-flying experiments (134990).

National Zoological Park: 216 birds and 5 eggs (130316, 131391, 131862, 132334, 133105, 134182, 134965); 47 mammals (130320, 131199, 131853, 132710, 133537, 134442); 1 land snail (130800); skull of Alaska Peninsula bear, skull of Cape hunting dog, and skull and skeleton of African bush pig (133044); 1 land crab (133140).

SNYDER, L. C., Lacona, N. Y.: 65 land and fresh-water shells (8 species) from New York (132090).

SODERBERG, Y. E., Mystic, Conn.: 50 etchings and drypoints for exhibit February 25 to March 24, 1935 (133103, loan); 1 drypoint etching (134792).

SOUTH AFRICA, UNION OF, *Department of Agriculture*, Pretoria, South Africa: (Through Dr. E. P. Phillips) Photograph of plant from Transvaal (132327, exchange); 216 plants from South Africa (132475, 133576; exchange); 241 South African plants collected by J. Thode (132781, exchange).

SOUTHWESTERN COLLEGE, Winfield, Kans.: (Through Prof. C. E. Burt) 263 plants (130973).

SOUTHWORTH, CHARLES, Thedford, Ontario: 20 fossil invertebrates from Middle Devonian of southwestern Ontario (131171); 11 invertebrate fossils, corals and brachiopods, from Devonian (Hamilton) rocks of southwestern Ontario (132694).

SPALDING, E. A., Worcester, Mass.: A 13-blade clasp knife with concealed locking devices said to have been made before 1800 (132324).

SPARROW, Mrs. LOUISE K., Washington, D. C.: Plaster copy of bust of Austin H. Clark, originally done in bronze by donor (131623).

SPAWN, WILLMAN. (See under Dr. A. Z. Hailman.)

SPENCE, Dr. H. S., Ottawa, Ontario: 3 specimens of titanite from Leeds County, Ontario (134986).

SPENCER LENS Co., Buffalo, N. Y.: 6 strip films on health subjects for use in automatic delineascope to supplement public health exhibits (132400).

SPRINGER FUND, Smithsonian Institution: 5 echinoderms from Devonian of Ontario (131057); 25 Pennsylvanian crinoids from Oklahoma (131615); 7 Coal Measures crinoids from Oklahoma (131936); 6 Carboniferous crinoids from Ochelata shale of Bartlesville, Okla. (133584); 16 New York Silurian and Devonian crinoids and blastoids (134597).

SPRINGER, STEWART, Biloxi, Miss.: 1 shrimp, 1 parasitic copepod, and 2 parasitic worms (131957).

SQUIER, ESTATE OF Maj. Gen. G. O., Washington, D. C.: (Through Mrs. Mary S. Parker) Marble bust of Gen. John J. Pershing by Moses W. Dykaar, 14 medals and decorations awarded to Maj. Gen. Squier 1899–1918 (129393).

STAATLICHE BIOLOGISCHE ANSTALT AUF HELGOLAND, Helgoland, Germany: (Through Dr. H. Hertling) 6 shrimps (130538).

STABLER, EMMA, Washington, D. C.: Wrought-iron meat fork of Colonial period, Leesburg, Va. (132391).

STACH, LEO, Melbourne, Victoria: 43 corals (16 species) from Tertiary rocks of southern Australia (130455).

STADNICHENKO, MARIA S., Washington, D. C.: Bottle vase from Casa Blanca, Peru (134711).

STAFFORD, TOM, Chihuahua, Mexico: 1 specimen of pyrrhotite (132458).

STAINBROOK, Dr. M. A., Lubbock, Tex.: 2 specimens of a rare cystoid from Devonian of Palo, Iowa (127541, exchange).

STANFORD UNIVERSITY, Stanford University, Calif.: 275 plants from Arizona and Mexico (131754); 171 plants from Lower California and Sonora (133575, exchange).

STATE, U. S. DEPARTMENT OF: (Through G. C. Woodward, U. S. consul, Prince Rupert, British Columbia) 1 gill-raker from carcass of a basking-shark washed ashore at Henry Island, British Columbia (132317).

STEIN, HILDA A., Carbondale, Ill.: 1 pine mouse (133884).

STEPHEN, W. B., West Asheville, N. C.: 2 pottery vases made by donor at his Pisgah Forest Pottery, West Asheville (132641).

STEVENSON, J. A. (See under U. S. Department of Agriculture, Bureau of Plant Industry.)

STEWART, J. T., Jr., Portsmouth, Va.: 1 flying squirrel and 5 mollusks (133306).

STEYSKAL, GEORGE, Detroit, Mich.: 19 insects (131447).

STIRN, L. & E., INC., New York City: 3 specimens of novelty velvets (134085).

STODDARD, H. L., Thomasville, Ga.: 18 quail (131048).

STONE, Dr. ALAN. (See under Graham Fairchild and W. H. W. Komp.)

STRANEO, DOTT, ING., Fermo, Italy: 73 beetles (32 species) (130675, exchange).

STRATTON, C. H., Washington, D. C.: (Through E. H. Walker) 2 specimens of a cultivated plant from South America (133848).

STRONG, Dr. W. D. (See under Richard Davis.)

STUDHALTER, Prof. R. A., Lubbock, Tex.: 351 plants from New Mexico, Texas, and Sonora (130627).

SUCKERT LOOSE-LEAF COVER Co., Detroit, Mich.: 3 samples of loose-leaf binding as manufactured for the National Geographic Magazine, unfilled, filled, and finished; 1 map chest with 2 maps, together with a saw and 14 strips of gum cloth and instructions (131062).

SULLIVAN, Prof. J. M., Jackson, Miss.: 12 specimens of loess with fossil shells and concretions from Loess formation of the bluffs of Vicksburg, Miss. (131539).

SWALLEN, J. R., Washington, D. C.: 64 plants from Michigan, Florida, and California (133014). (See also under U. S. Department of Agriculture, Bureau of Plant Industry.)

SWANTON, Dr. J. R. (See under Dr. L. A. Williams.)

SWASEY, AMBROSE, Cleveland, Ohio: Clay brick taken from a wall of the first Ming Palace, Peiping, China, built between 1400 and 1500 A. D. (132440).

SWINGLE, C. F., Washington, D. C.: 1 plant (132132).

SWINNERTON, Prof. A. C., Yellow Springs, Ohio: (Through Dr. A. F. Foerste) Holotype of Silurian cephalopod (133561).

SYRACUSE UNIVERSITY, Syracuse, N. Y.: (Through Prof. Ernest Reed) 271 plants from Venezuela (134399, exchange).

TEXAS COLLEGE OF ARTS AND INDUSTRIES, Kingsville, Tex.: (Through Prof. C. T. Reed) Collection of mammals, echinoderms, mollusks, marine invertebrates, 1 reptile, and 31 fishes, all from near Corpus Christi, Tex. (131958).

THIOKOL CORPORATION, Yardville, N. J.: 2 specimens of crude Thiokol, a synthetic rubber substitute, 2 specimens of compounded and cured Thiokol, and 1 sample each of a cement and a thinner derived from Thiokol (133809).

THOMAS, W. J., Atlanta, Ga.: Clay platform pipe found in northern part of Jasper County, Ga., along Alcovy River (134880).

THOMPSON, G. A., Jr. (See under Rhode Island State Department of Agriculture.)

THOMPSON, HELEN, Washington, D. C.: Cast and wrought-iron waffle iron of Colonial period (133104).

THOMPSON, J. W., Seattle, Wash.: 474 plants from Western United States (131756, exchange).

THOMPSON, Dr. W. F. (See under University of Washington.)

THORNBURG, CHAUNCEY, Chihuahua, Mexico: 1 specimen of pyrrhotite on marmatite (132455).

THORNTON, Hon. C. W., Nome, Alaska: 7 plants from Alaska (131380).

TIDESTROM, IVAR, Washington, D. C.: Specimen and 4 illustrations of a historic oak in France (131758); 52 plants from France (133013).

TIMMONS, VARDAMAN, Saltillo, Miss.: (Through Hon. J. E. Rankin) Tooth of a mastodon found in bed of Camp Creek near Tupelo, Miss. (130500).

TOLEDO SYNTHETIC PRODUCTS CO., Toledo, Ohio: Series of 87 specimens illustrating raw materials, manufacturing process, and finished products for the urea-formaldenyde plastic called "plaskon" (132790); 8 small articles molded from "plaskon" (134668).

TORONTO, UNIVERSITY OF, Toronto, Ontario: 1,181 plants from Canada (134069, exchange).

TOWNES, C. H., Greenville, S. C.: 11 mollusks, 1 coral, 7 crabs, 15 amphipods, and 2 insect larvae from South Carolina (131002).

TOWNES, H. K., Ithaca, N. Y.: About 35 amphipods and 1 crayfish (130878).

TOWNS, MIRABEAU, New York City: 2 beryl crystals (variety emerald) (132779).

TRAIN, PERCY, Danio, Oreg.: 221 plants from Nevada and Oregon (129605, 130028, 130459, 130796, 131040, 131364, 134580); 1 sample of silver ore from Buck and Charlie mine at Rochester, Nev. (132764).

TREASURY, U. S. DEPARTMENT OF THE:

Bureau of the Mint, Washington, D. C.: United States bronze, nickel, silver, and gold coins struck 1933–34 and 2 bronze medals (duplicates) commemorating inauguration of Franklin D. Roosevelt (22 specimens) (130752); 2 bronze cents struck at the Philadelphia mint in 1933 and 2 silver half-dollars struck at the San Francisco mint in 1933 (4 specimens) (132116).

Public Health Service, Hamilton, Mont.: 11 flies (7 species) (131189).

Public Health Service, Ancon, Canal Zone: (Through W. H. W. Komp) Genitalia slides representing 4 species of mosquitoes (132221).

TREMBLY, HELEN L., Washington, D. C.: 8 plants (lower cryptogams) from Southeastern United States (130586).

TRUITT, Dr. R. V., Solomons, Md.: About 20 shrimps from Cove Point Lagoon, Chesapeake Bay, Md. (130334).

TULANE UNIVERSITY, *Department of Botany*, New Orleans, La.: (Through Anna Haaf) 1 fern from Jamaica (130613).

TULL, Capt. C. E., Portsmouth, Va.: 1 moth from Virginia (130885).

TUNELL, GEORGE, Washington, D. C.: 3 lots of copper ore from Chuquicamata, Chile (133791).

TUNICK, LOUIS, Cincinnati, Ohio: 1 combination bridge table and fireplace screen, complete with stand, made of fancy wood inlays, 2 small inlaid wood blocks, and 25 study samples of cabinet woods (134589).

TURNER, MRS. HARRIET S., Falls Church, Va.: 2 spiders (134634).

TWEEDIE, M. W. F., Singapore, Straits Settlements: 25 crabs and 6 stomatopods (133820). (See also under Raffles Museum and Library.)

TWITCHELL, A. H., Takotna, Alaska: Collection of dipterous larvae from Alaska (131065).

TWITCHELL, MRS. NONA G., London, England: 85 mollusks from coast of Red Sea (129994).

TYLER, E. S., Fredericksburg, Va.: 1 skull and lower jaws of giant pig from Oligocene of western Nebraska (131770.)

ULKE, DR. TITUS, Washington, D. C.: 1 fly (130532, exchange); 6 specimens of selenite from Fort Washington, Md. (131921); 3 bats (131951); 2 amphipods and 2 isopods from Bear Island, Potomac River, Md. (133584); 1 salamander from District of Columbia (133807).

ULLRICH, E. N., St. Louis, Mo.: Shoulder insignia of type worn by members of District of Paris Headquarters Unit, A. E. F., during World War (130368).

ULRICH, DR. E. O. (and Party), Washington, D. C.: 5,000 Lower Ordovician invertebrate fossils (trilobites, brachiopods, snails, and cephalopods) from Phillipsburg, Quebec, and vicinity (131173, collected for Museum).

UNITED AIR LINES, INC., Chicago, Ill.: A 2-bladed controllable-pitch airplane propeller, the type for which the Hamilton Standard Propeller Co. was awarded the Collier trophy in 1933 and the first of its type to complete more than 2,500 hours of flying service (131086).

UNITED SHOE MACHINERY CORPORATION, Boston, Mass.: Series of specimens showing successive steps in manufacture of a woman's shoe by the Goodyear Welt Process and a series illustrating the recently developed cemented process for making women's shoes (132979).

UNITED STATES PLYWOOD CO., INC., New York City: 12 specimens, 6 photographs, and 1 photostat copy of a patent drawing illustrating manufacture and use of Flexwood for wall coverings (134708).

UNITED STATES TRUST CO. OF NEW YORK. (See under W. B. Markell.)

UNIVERSITE DE LAUSANNE, *Institut de Botanique*, Lausanne, Switzerland: 105 plants from North Africa (132313, exchange).

UNIVERSITETETS MINERALOGISKE MUSEUM, Copenhagen, Denmark: (Through Dr. C. Poulsen) 5 specimens and 6 casts of brachiopods from Nunatami formation of Lower Ordovician age (132119).

UPHOF, PROF. J. C. T., Winter Park, Fla.: 9 minerals from East Indies, Peru, and Norway (131433, exchange).

UPJOHN CO., Kalamazoo, Mich.: 3 standard wall cases and 31 dioramas illustrating operations in manufacture of medicines (131-752).

URIARTE, DR. L. (See under Instituto Bacteriologico.)

UTAH STATE AGRICULTURAL COLLEGE, Logan, Utah: (Through G. F. Knowlton) 252 miscellaneous insects from Utah (129716, 130013, 130542, 131384, 131716, 131738, 131946, 132167, 132188, 132701, 133549, 134410.)

VALERIO, PROF. MANUEL, San Jose, Costa Rica: 2 plants from Costa Rica (133839).

VAN ALLER, T. S., Mobile, Ala.: 13 Lepidoptera (131346).

VAN BIBBER, MRS. H. W., Takoma Park, D. C.: Porcelain commemorative cup and a gold watch, both of which had belonged to Henry William Van Bibber (133590).

VANDERBILT, W. K., New York City: The Vanderbilt Cup, automobile racing trophy, established in 1904 (131820).

VANDERBILT UNIVERSITY, *School of Medicine*, Nashville, Tenn.: 3 slides of mounted mites from Nashville (131301).

VAN DER SCHALIE, HENRY, Ann Arbor, Mich.: 1 mollusk (paratype) from Pea River, Barbour County, Ala. (130997).

VAN DUZEE, E. P., San Francisco, Calif.: 2 leafhoppers (paratypes of a species not hitherto represented in Museum) (134029, exchange).

VAN DUZEN'S GARAGE, Hackensack, N. J.: An early spring-driven engine starter for an automobile (134215).

VAN DYKE, DR. E. C. Berkeley, Calif.: 1 beetle (134077).

VAN HORN, LT. COL. J. H., Ocean Port, N. J.: Ethnological specimens collected by donor's father during early eighties from Indian tribes of Arizona and New Mexico (131857).

VARELA, DR. A. G. (See under Jardin Botanico.)

VASSAR COLLEGE, Poughkeepsie, N. Y.: 212 mollusks collected by Mr. Teator (117912).

VAZQUEZ, RAOUL, Key West, Fla.: 1 head and 1 extra pair of antlers of the Key deer from Florida (133256).

VONSEN, M., Petaluma, Calif.: 25 specimens of Californian minerals (133790, exchange).

WACO AIRCRAFT CO., Troy, Ohio: Model $\frac{1}{8}$ size, of the Waco straight-wing airplane, 1930 (134482).

WAGENHORST, Mrs. E. O., Washington, D. C.: Satin dress and lace fan of about 1837 and a cameo brooch of about 1862 (132413).

WAILES, G. H., Nanaimo, British Columbia: 1 vial of rotifers (130039)

WALCOTT, Mrs. C. D., Washington, D. C.: 1 wood thrush (130296); 15 plants from United States (131923); wooden figure and carved slate tray from Alaska (131953); Navaho Indian blanket made about 1870 and a whalebone basket from Point Barrow, Alaska (132310); 3 baleen baskets from Point Barrow (134246); 1 specimen of gold from Bull Frog, Nev. (134439); collection of minerals and Cambrian fossils from Death Valley region (134985).

WALKER, E. H. (See under C. H. Stratton.)

WALLEY, G. S. (See under Canadian Government, Department of Agriculture.)

WAR, U. S. DEPARTMENT OF:

Army Medical Museum and Library: Head, front and hind foot, and tip of tail of each of 2 monkeys from Zamboanga Island, Philippines (133598).

Office of the Chief of the Air Corps: A winter flying helmet, type B–5 (124225); an airplane wing panel and a section of the fuselage salvaged from a Douglas O–38–B airplane (128737).

WARD, F. H., Rochester, N. Y.: 100 Recent bryozoans from Australia (133009).

WARD, Dr. H. B., Urbana, Ill.: 1 mounted cotype of a helminth and 6 alcoholic specimens of same (130004).

WARD, J. S., Cherrydale, Va.: Parasitic worms from Anacostia River (126831).

WARD, MELBOURNE, Lindeman Island, Queensland: 9 crabs from Lindeman Island (131877).

WARD'S NATURAL SCIENCE ESTABLISHMENT, INC., Rochester, N. Y.: A rare cephalopod and bryozoan from Richmond formation of Ohio (130274, exchange); 30 early Silurian cephalopods and brachiopods from Ohio (132718, exchange).

WARFEL, H. E., Amherst, Mass.: 1 lot of copepods and 25 ostracods (133138).

WARMBATH, J. S., Washington, D. C.: 1 long-tailed jaeger (131145, exchange).

WARRENFELTZ, Mrs. MARTHA E. (See under Mrs. Ida Kretzer.)

WARTHIN, Dr. A. S., Poughkeepsie, N. Y.: 1 rare cystid from Partridge Point, Alpena, Mich. (131185).

WASHINGTON, STATE COLLEGE OF, Pullman, Wash.: 100 plants from Pacific Northwest (131890, exchange).

WASHINGTON, UNIVERSITY OF, Seattle, Wash.:

Department of Botany: Specimen of Selaginella from Montana (133609).

School of Fisheries: (Through Drs. W. F. Thompson and L. P. Schultz) 2 porpoise skulls without lower jaws (134494).

WATKINS, L. M., Alexandria, Va.: 1 pair of plano-convex eye-glasses with steel frames, made about 1890 (133817).

WATTS, J. G., Clemson College, S. C.: 1 insect paratype (131188).

WAUGH, Dr. L. M., New York City: 6 sets of casts of Eskimo jaws (131864).

WAY, Dr. S. C., San Francisco, Calif.: Archeological material from various camp sites in Truckee River district, mostly in Placer and Nevada Counties, Calif. (128893, exchange).

WEDELL-WILLIAMS AIR SERVICE CORPORATION, Patterson, La.: Model, $\frac{1}{2}$ size, of the Wedell-Williams "44" racing airplane, which until recently held the world's airplane speed record of 304 miles an hour (134377).

WEEKS, W. H., Brooklyn, N. Y.: 10 mollusks from Philippines (133524).

WEHR, Dr. E. E., Washington, D. C.: Collection of mollusks (about 10 specimens) and marine invertebrates from Puget Sound region (132064).

WEIDHAAS, ERNEST, Pelham Manor, N. Y.: 4 specimens of prehnite pseudomorphs (130332, exchange).

WELCH, Prof. P. S. (See under University of Michigan, Department of Zoology.)

WERNER, L. S., New York City: 2 bronze tokens commemorating the return of Rear Admiral Richard E. Byrd from Little America in 1935 (134769).

WESLEYAN COLLEGE, Macon, Ga.: (Through Dean L. P. Smith) Collection of zeuglodont material from Ocala limestone of Georgia (131306).

WEST, Dr. H. S., St. Clairsville, Ohio: A scarificator and a lancet (131386).

WESTINGHOUSE ELECTRIC & MANUFACTURING CO., East Pittsburgh, Pa.: A micarta airplane propeller of the adjustable-pitch type, with 2 blades and a hub (133624).

WETMORE, Dr. ALEXANDER, Washington, D. C.: 1 raven skull from Wales, 1 bat skeleton from Surrey, and 1 razor clam from Bournemouth, England, collected by donor (130429); 19 birds (130616, 132092, 132725, 134705, 134915); 2 young harvest-fishes from Cove Point, Chesapeake Bay (131389); miscellaneous collection of philatelic material (8 specimens) (131594, loan); 1 white-throated sparrow (131616); 1 pine warbler (132516); 1 hermit thrush (134489).

WETMORE, ESTATE OF FLORENCE A., New London, Conn.: (Through Florence K. Geer) 2 portraits by Henry Inman of Col. Robert C. Wetmore and his wife, Adeline Geer Wetmore (128745, bequest).

WHEELER, Prof. G. C., Grand Forks, N. Dak.: 10 parasitic worms (133057).

WHEELER, L. C., La Verne, Calif.: 21 plants from California (132076, 132754); 1 plant from Oregon (134064).

WHERRY, Dr. E. T., Philadelphia, Pa.: 1 fern from Texas (130383).

WHITE, Mrs. ELEANOR C., Washington, D. C.: 115 plants from Eastern United States (134821); 5 plants from Florida (134885).

WHITE, M. H., Baltimore, Md.: 1 tooth of fossil shark from Calvert formation, Miocene, near Governors Run, Md. (132370); 1 mastodon tooth from Miocene Calvert formation near Governors Run (133595).

WHITES, D. B., Louisville, Miss.: (Through Dr. C. E. Burt) 5 turtles from Louisville, Miss. (130631).

WHITMORE, Mrs. CHARLES. (See under A. W. Barker.)

WILCOX, J., Puyallup, Wash.: 6 flies (paratypes of 2 species) (133760, exchange).

WILHELM, Mrs. CATHERINE, Washington D. C.: A red-white-and-blue, wool and cotton, hand-woven, "overshot" coverlet believed to have been made about 1840 near Harrisonburg, Va., by the lender's grandmother (134084, loan).

WILLARD, Mrs. A. L., Washington, D. C.: Gold-mounted and jeweled sword and scabbard presented to Rear Admiral Arthur Lee Willard by State of Missouri in recognition of his services during the Spanish American War (134968).

WILLARD, Dr. BRADFORD, Harrisburg, Pa.: 4 Tully brachiopods from Pennsylvania (134021, exchange).

WILLETT, GEORGE, Los Angeles, Calif.: 3 mollusks from Umnaka Island, Alaska (133530).

WILLIAMS, C. R., Washington, D. C.: 1 plant from Florida (131905).

WILLIAMS, Mrs. IDA C., Baltimore, Md.: 61 specimens of drug-store apparatus and equipment used in Baltimore about middle of 19th century (134457); 36 specimens of drug-store equipment used in Baltimore during middle of 19th century (134785).

WILLIAMS, Dr. L. A., Abbeville, Ga.: (Through Dr. J. R. Swanton) Clay pipe found on Jordans Bluff near Abbeville (134878).

WILSTACH, PAUL, and HILL, Capt. W. H. T., Washington, D. C.: Lot of Arawak potsherds from Ile a'Cabrite (Boat Island), Haiti (130277).

WINDSOR, A. S., Chicago, Ill.: 1 mollusk from coast of Florida (134070).

WISNIEWSKI, S. P., Milwaukee, Wis.: 9 millerites from Middle Devonian outcrop, Milwaukee (133638, exchange).

WOFFORD, J. W., Jr., Atco, Ga.: Archeological specimens found along Pumpkin Vine Creek, Bartow County, Ga. (134892).

WOOD, Dr. CASEY A., Pasadena, Calif.: Coconut-fiber necklace with sperm-whale tooth pendant from Fiji Islands (131152); Sinhalese mahout's knife and sheath (131865).

WOODWARD, G. C. (See under U. S. Department of State.)

WOOLLETT, WILLIAM, Los Angeles, Calif.: 41 lithographs of Boulder Dam for exhibit February 14–28, 1935 (133049, loan).

WU, Dr. C. F. (See under Yenching University.)

YALE UNIVERSITY, New Haven, Conn.: 2 samples of foreign woods (133634, exchange).

School of Forestry: 78 woody plants from tropical regions (132724, exchange); 1 plant from Colombia (134232).

YAMAMOTO, Dr. Y., New York City: 10 plants from Formosa (132397).

YENCHING UNIVERSITY, Peiping, China: (Through Dr. C. F. Wu) 124 insects from China (109602).

YOUNG, C. E., Yazoo City, Miss.: (Through Dr. C. E. Burt) 5 turtles, 4 lizards, 9 snakes, and 1 frog from Yazoo County, Miss. (130628, 131059, 131437).

YOUNG, DAVE, Washington, D. C.: (Through B. M. Morgan) 1 cormorant (131818).

YOUNG, R. T., Missoula, Mont.: 15 beetles (130506).

YOUNGBLOOD, Dr. BONNEY, Washington, D. C.: Bow and 6 arrows from the Paresi or Parintintin Indians of Matto Grosso (133955).

ZENKERT, C. A., Buffalo, N. Y.: 52 plants from western New York (130476).

ZODAC, PETER, Peekskill, N. Y.: 1 specimen of opal from Hardtrigger Creek, Owyhee County, Idaho (131343).

ZOOLOGICAL INSTITUTE ACADEMY OF SCIENCE, Leningrad, U. S. S. R.: (Through Prof. A. L. Behning) About 35 amphipods (130824, exchange).

ZOOLOGICAL MUSEUM, Copenhagen, Denmark: 2 skins of Greenland mallard (131421).

ZOOLOGISKA INSTITUTIONEN, Lund, Sweden: 18 reptiles and amphibians (132515, exchange).

PUBLICATIONS ISSUED BY THE UNITED STATES NATIONAL MUSEUM DURING THE FISCAL YEAR 1934–35

REPORT

Report on the progress and condition of the United States National Museum for the year ended June 30, 1934. 8 vo., pp. 1–109.

PAPERS PUBLISHED IN SEPARATE FORM

FROM VOLUME 83 OF THE PROCEEDINGS

No. 2972. *Corynecrinus*, a new Devonian crinoid genus. By Edwin Kirk. Pp. 1–7, pl. 1.

No. 2973. American muscoid flies of the genera *Ceratomyiella* and *Paradidyma*. By H. J. Reinhard. Pp. 9–43.

No. 2974. Revision of the American two-winged flies belonging to the genus *Cuphocera*. By H. J. Reinhard. Pp. 45–70.

No. 2975. Some fossil corals from the West Indies. By John W. Wells. Pp. 71–110, pls. 2–5.

No. 2976. Fossil hares from the late Pliocene of southern Idaho. By C. Lewis Gazin. Pp. 111–121, figs. 1–5.

No. 2977. Parasites of fishes in Galveston Bay. By Asa C. Chandler. Pp. 123–157, pls. 6–12.

No. 2978. On the Reptilia of the Kirtland formation of New Mexico, with descriptions of new species of fossil turtles. By Charles W. Gilmore. Pp. 159–188, figs. 6–17, pls. 13–18.

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